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 1   IN THE UNITED STATES DISTRICT COURT

 2   IN AND FOR THE DISTRICT OF DELAWARE

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     INTERNATIONAL BUSINESS MACHINES
 4   CORPORATION,   :   CIVIL ACTION
                                          :
 5   Plaintiff,   :
     v   :
 6   :
     GROUPON, INC.,   :
 7   :   NO. 16-122-LPS
             Defendant.
 8   - - -

 9   Wilmington, Delaware
                                 Friday, July 20, 2018
10   Jury Trial - Volume E

11   - - -

12   BEFORE: HONORABLE LEONARD P. STARK, Chief Judge, and a jury

13   APPEARANCES: - - -

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20                P R O C E E D I N G S

21              (REPORTER'S NOTE:  The following jury trial was

22     held in open court, beginning at 8:30 a.m.)

23              THE COURT:  Good morning, everyone.

24              (The attorneys respond, "Good morning, Your

25     Honor.")
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 1                    THE COURT:  Are there any issues from IBM this

 2    morning?

 3                    MR. OUSSAYEF:  Yes, Your Honor.

 4                    THE COURT:  Okay.  Come on up.

 5                    MR. OUSSAYEF:  Good morning, Your Honor.  Karim

 6    Oussayef for IBM.

 7                    There are some additional issues with the Dunham

 8    demonstratives.

 9                    THE COURT:  These would be the revised

10    demonstratives?

11                    MR. OUSSAYEF:  That's correct, Your Honor.  So

12    we've received a revised set.  Unfortunately we still have

13    objections here.  So I'll just take Your Honor through a few

14    of them here.

15                    Here, we have a picture of some code on the

16    right, and then on the left we have some, I think this is

17    the result of an experiment about what kind of request would

18    be sent from the server.  All of this on the left, the

19    get-deals-gg-sofa-styles, user agent, the host language,

20    connection, all of that was not discussed during discovery.

21                    THE COURT:  You think it was an experiment.  I

22    assume you asked.  What did they same?

23                    MR. OUSSAYEF:  Well, we just got the

24    demonstratives this morning, so we didn't have a whole lot

25    of time to meet and confer, Your Honor.
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 1                    THE COURT:  Is that an experiment?

 2                    MR. HADDEN:  No, Your Honor.  This is just a web

 3   request from a browser request.  We're just showing a HTTP

 4   request from a browser which is a HTTP request.

 5                    MR. OUSSAYEF:  Your Honor, that HTTP request was

 6   not disclosed.  We disclosed all of our back and forth and

 7   we captured the communications, and we sent that to the

 8   other side in fact discovery and said here is what is sent

 9   back and forth so you can have fair chance to respond to it.

10   This is the first time we have seen this documentation of

11   the communications.

12                    THE COURT:  Okay.  Yes, come to the podium.

13   Let's get this one resolved.

14                    MR. HADDEN:  I'm sorry.  Dave Hadden for

15   Groupon.

16                    THE COURT:  Right.  Good morning.

17                    MR. HADDEN:  This is standard HTTP request.  I

18   think this might be one actually they captured.  It's

19   nothing controversial.  It's just a web request.

20                    THE COURT:  Can you point to where you disclosed

21   this one to them?

22                    MS. SHAMILOV:  Yes, Your Honor.

23                    THE COURT:  Come to the podium if you want to be

24   heard.  And good morning to you.

25                    MS. SHAMILOV:  So the way websites work, every
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1   time you click on anything on the website, a request gets

2   sent to the server. So essentially what counsel is now

3   saying, because we didn't capture every possible request

4   that can be generated from every single link and goes to the

5   Groupon server, we did not disclose it.

6   They have access to our website. They had all

7   of the source code, entirety of the source code relevant.

8   THE COURT: We talked about this yesterday. You

9   apparently designated the entire source code --

10   MS. SHAMILOV: No, no, no.

11   MR. HADDEN: I'm sorry.

12   THE COURT: You all have to wait until I'm done

13   talking.

14   MS. SHAMILOV: I'm sorry.

15   THE COURT: I know it takes me awhile sometimes.

16   We talked about giving proper notice of what you

17   were going to use. We talked about this is a fact witness.

18   We're not even up to your expert yet, so, you know, tell me

19   how this is fair and proper to pull out of the entirety of

20   group source code when you haven't told them before that

21   this was the type of command you wanted to show through a

22   fact witness.

23   MS. SHAMILOV: This is the source code page that

24   we specifically did identify in the disclosure. So this is

25   the source code page that they were asking our witnesses

1   about in depositions and technical pages. This is the

2   mustache template. They talked about mustache templates in

3   their summary judgment. This has been throughout the case

4   considering the fact they were asking our witnesses about,

5   our witnesses testified about. I mean mustache templates

6   were throughout. This is a demonstrative that says when the

7   user clicks on the computer, on the link on our website, a

8   request, an HTTP request gets generated and it gets sent to

9   our servers. Our servers use mustache template that they

10 themselves put in their case-in-chief, right? And asked our

11 witnesses about.

12   Here is what, here is the mustache template that

13 they knew exactly what Mr. Dunham would disclose this

14 particular mustache template, and here is what, how, what

15 our servers do, how our system works to generate a response

16 back. This is how our website works. This is what Mr.

17 Dunham is going to say. He is an engineer. He is a patent

18 holder.

19   THE COURT: Is there prejudice to you to doing

20 this through your expert.

21   MS. SHAMILOV: Absolutely. Basically that means

22 you can never put a fact witness --

23   THE COURT: We're not --

24   MS. SHAMILOV: -- who wrought the code.

25   THE COURT: I'm asking you in the context of

1   this case, in this trial, with the issues that came up

2   yesterday with rulings I made yesterday, where is the

3   prejudice at this point in this case? Don't worry about the

4   other cases.

5   MS. SHAMILOV: Sure.

6   THE COURT: Can you wait until you get your

7   expert witness to go through whatever code and whatever

8   experiments you want to do?

9   MS. SHAMILOV: First of all, this is not an

10   expert, Your Honor. There is going to be absolutely no

11   experiment discussed. And if Mr. Dunham starts talking and

12   they think it's an experiment, they can raise an objection

13   and deal with it there.

14   But I think Groupon is entitled is to present a

15   fact witness, an engineer to describe how a system works,

16   and I think it is prejudicial to have the jury only hear it

17   from the expert, and that they say that Groupon is paying

18   this expert and he is biased, instead of hearing how the

19   system works, just about facts from an engineer who works at

20   Groupon.

21   So I represent to you here there will be no

22   experiments discussed, there will be absolutely no claim

23   language discussed. There will be absolutely nothing

24   pointed out Dr. Schmidt said this, is that right or wrong.

25   There will be absolutely nothing discussed about

 1   noninfringement or, you know. The only thing that will be

 2   discussed is Mr. Dunham will explain how our system works.

 3   That is a factual issue. We're entitled to present a fact

 4   witness to the jury, you know, from the company to describe

 5   that instead of relying on an expert that they can make a

 6   lot of fun about that he is biased and he is getting paid by

 7   Groupon.

 8   MR. HADDEN: One other point is Dr. Schmidt

 9   relied on Mr. Dunham's testimony purportedly for his

10   understanding of how it worked. And now it looks like Mr.

11   Dunham should be able to explain how it works.

12   THE COURT: All right. Mr. Oussayef.

13   MR. OUSSAYEF: Your Honor, just to be clear, we

14   don't object to using exhibits that are properly disclosed.

15   The problem we have is where the content is on the left, the

16   documentation of the request, that is something we didn't

17   know about. It's also something that Dr. Schmidt didn't

18   talk about.

19   There is no prejudice to having their expert

20   discuss any kind of documentation of request or how he

21   thinks, you know, the system works when you capture it and

22   put it on to a screen. This is just a preference they have

23   to do it through a fact witness. And it is prejudicial to

24   us because we don't know what the scope of the fact witness

25   testimony will be as opposed to an expert where both parties

1   have disclosed and we know what the experts are going to say.

2   THE COURT: All right.   But at this point, do

3   you think you know the scope of what the fact witness is

4   going to say through the demonstrative?

5   MR. OUSSAYEF: Your Honor, honestly, I have a

6   lot of trepidation about what is actually going to happen

7   with this fact witness.   I don't know how he is going to use

8   this request, and that is one of the strong bases for my

9   request to object to this and to exclude what is on the left

10   here, this request.

11   THE COURT: Well, come tell us how he is going

12   to use this request.

13   MR. HADDEN: This is just going to be an example

14   of a request that comes in from a browser like any other

15   when a user clicks on a link on Groupon.   And it will

16   explain how our backend service oriented architecture takes

17   this request and produces the responsive page.   It's just a

18   technical explanation of the steps of how our system works

19   from receiving a browser request to returning a page.

20   That's his job at Groupon to build those systems and that is

21   what he is going to explain.

22   THE COURT: Do your revised demonstratives

23   disclose all of the requests that you plan to have Mr.

24   Dunham talk about?

25   MR. HADDEN: Yes.

1   THE COURT: Okay. Mr. Oussayef. Did that

2   explanation help?

3   MR. OUSSAYEF: No, Your Honor. Unfortunately

4   not. This is a request we're seeing for the first time

5   literally this morning, so we don't know exactly how they're

6   going to use this request. And --

7   THE COURT: But what was it about that Mr.

8   Hadden just said that doesn't tell you how they're going to

9   use the request?

10   MR. OUSSAYEF: So, Your Honor, if I may go

11 through a few more slides.

12   THE COURT: Sure.

13   MR. OUSSAYEF: This slide in isolation is

14 something that we object to. But as we go through the rest

15 of the slides, we'll see additional issues and how much this

16 has really strayed into the firm territory of an expert.

17   So here we have Phil Dunham with hearsay

18 testimony on the Elmo. And I guess he is going to talk

19 about what testimony he said in his deposition and try to

20 distinguish why that isn't being interpreted correctly.

21 That is something an expert would typically do.

22   Here we have a document where Groupon is citing

23 to backend services, their response that this document was

24 produced during discovery, but this is something they got

25 off of their backend servers, as I understand, and got a

1   native version so it's actually legible.

2   Here is the one that is actually in evidence. I

3   assume that the boxes, I didn't see any of the boxes that

4   they are using legibly here. So I assume it is one of these

5   grayed out boxes, but during the meet-and-confer process,

6   they told us that somewhere in there is the backend services

7   that Mr. Dunham is going to give testimony about and

8   elucidate us about how to extrapolate that from this

9   illegible document.

10   Here is some additional code snippet that was

11 not disclosed during discovery.

12   THE COURT: Well, to be clear, they disclosed

13 all of their code, right?

14   MR. HADDEN: Yes.

15   MR. OUSSAYEF: Your Honor, actually they

16 disclosed the backend code. There is public facing code on,

17 that you can see when you access Groupon's website. So if

18 you go to the website, depending on where you go on the

19 website, you get responses back, and that can be a whole

20 bunch of code that could go anywhere on your computer that

21 comes from the public facing website.

22   That public facing code that was downloaded

23 was not disclosed. It is just a backend code that was

24 disclosed. So we're not able to understand that this is a

25 particular piece of code that they wanted to cite to from

1   their public facing website.

2   Furthermore, we had no notice that this

3   particular snippet out of the thousands, hundreds of

4   thousands of code in this case was going to be the one that

5   they would present through their fact witness. It was

6   through an expert witness we have disclosure how they were

7   going to use particular code.

8   Here we have an internal error, which I assume

9   was the result of another test showing that, I don't know

10   what they're going to see here, but I would imagine they

11   would say something like if you go to this website in a

12   particular way you get some kind of error. Another

13   experiment that was not disclosed.

14   And, finally, you have another extrapolation

15   from the document. You can actually see a little bit more

16   clearly, Your Honor, that it is the same document I put on

17   the Elmo that is illegible, and you can see the kind of

18   pattern of long and blue boxes and then long and red that

19   looks like this in the version that is entered into evidence

20   in a legible version we didn't have a fair chance to respond

21   to.

22   So in total, it's clear that although they made

23   some modifications, Mr. Dunham is here to testify as a late

24   disclosed expert in a way that we can't predict.

25   THE COURT: All right. Mr. Hadden.

1   MR. HADDEN: Can you leave that up. So document

2   was produced, it was used throughout the case, there is a

3   clear image of it in their expert report. He relies on the

4   same document and draws boxes around it. There is no

5   dispute that they have this document, everyone knows what it

6   was.

7   THE COURT: So I'm sorry, a legible version of

8   this document was produced?

9   MR. HADDEN: Yes, it's reproduced throughout

10 Dr. Schmidt's expert report.

11   THE COURT: Mr. Oussayef, is that not true?

12   MR. OUSSAYEF: That's not true, Your Honor.

13   THE COURT: When I look at Dr. Schmidt's report,

14 it's not in there?

15   MR. OUSSAYEF: This color version where you can

16 actually read everything, that was not produced in this

17 case.

18   THE COURT: Put aside the color for a moment.

19   MR. HADDEN: Well --

20   THE COURT: Hold on. One person at a time.

21   Put aside color, did you get a legible version

22 of this document during discovery?

23   MR. OUSSAYEF: No, Your Honor, you can read --

24   THE COURT: Hold on. And if we look at

25 Dr. Schmidt's report, no legible version of this document is

1   in his report?

2   MR. OUSSAYEF: Your Honor, just for

3   clarification, you can read, you can read some of this

4   content, but it is very difficult. So to the extent we say,

5   you know, whether it's legible or not, I mean, he did rely

6   on parts that he could read, but as you can see, Your Honor,

7   it's very difficult to do.

8   THE COURT: All right. Someone has got to show

9   me the Schmidt version, I guess. Mr. Hadden, you can come

10   back and talk about the other issues while you're looking

11   for that.

12   MR. HADDEN: Sure.

13   THE COURT: What about the deposition excepts?

14   MR. HADDEN: The only point is they put that

15   deposition up in front of the jury already and they said it

16   meant one thing and he's going to explain what he was

17   actually talking about.

18   THE COURT: That's an excerpt of deposition

19   testimony that's already in the record?

20   MR. HADDEN: Yes, it's already been put up for

21   the jury.

22   THE COURT: Part of the designations they

23   played?

24   MR. HADDEN: They put a slide up with that exact

25   quote and his picture.

 1   THE COURT: When did they do that?

 2   MR. HADDEN: Dr. Schmidt's testimony.

 3   THE COURT: Part of Dr. Schmidt's testimony?

 4   MR. HADDEN: Dr. Schmidt relied on him, he said

 5   Filepp said this and Filepp is going to explain what he's

 6   talking about in that clip.

 7   The thing that they're saying is an experiment

 8   is just -- let me see if I can find.

 9   THE COURT: That is the Oops?

10   MR. HADDEN: That is what a user of Groupon

11   website gets on their screen if they try to purchase when

12   their cookies are disable, they are explaining we require

13   cookies to make purchases.   If you come to our site and you

14   don't have cookies, you get this screen that says Oops, you

15   cannot purchase.   That's not an experiment, that's just how

16   it works.

17   THE COURT: What do you anticipate the testimony

18   will be about how that Oops screen was generated?

19   MR. HADDEN: He's not going to talk about it.

20   He's going to say if you have cookies disability, you can't

21   make a purchase, you're going to get an error screen.   This

22   is what customers see.

23   THE COURT: What about the specific code that

24   was on one of the slides?

25   MR. HADDEN: All of this code was produced.

1   This is actually code that you can see in your browser, but

2   we produced all this and he's just going to explain that

3   this is the code that actually causes the popup to show.

4   THE COURT: All right. I think that was

5   everything except for the illegible document. I don't know

6   if you have it yet.

7   MR. OUSSAYEF: So this is --

8   MR. HADDEN: There is a color version. We have

9   this in color. We produced it electronically in color.

10   MR. OUSSAYEF: This is the version we have.

11   THE COURT: Okay.

12   MR. OUSSAYEF: In the expert report.

13   THE COURT: Are you telling me that you can't

14   read that?

15   MR. OUSSAYEF: So this, I don't know what that

16   word says, you know, I don't know what this word says or

17   this word says.

18   THE COURT: Are those, the line you're pointing

19   to, is that the four that they have pulled out and proposed

20   to discuss with Mr. Dunham?

21   MR. OUSSAYEF: I'm not sure where the four that

22   they're relying on come from.

23   MR. HADDEN: I think I can simplify this if you

24   like. I don't care about the four whatever you pulled out

25   at the bottom. You want us to take that part out or not

 1   show it, I'm fine. This is just a detail document for their

 2   internal engineers that kind of explains the more simplified

 3   document. We're not going to talk much about it. I'm going

 4   to give a sense of the different layers. If he has a

 5   concern that there is anything in here that he can't read,

 6   I'll take that out.

 7   THE COURT: Do you want to use the version

 8   that's in the expert report?

 9   MR. HADDEN: It's kind of hard to see, but if

10   that's the issue.

11   THE COURT: I mean, your witness presumably

12   knows what it says; right?

13   MR. HADDEN: He does, but it's hard for the jury

14   to see what's going on. If it's those four boxes at the

15   bottom, we'll take out that part.

16   THE COURT: Is there any objection to using the

17   version that's in this report?

18   MR. OUSSAYEF: No objection, Your Honor.

19   THE COURT: Do you object doing that?

20   MR. HADDEN: No, we can do that.

21   THE COURT: So let's do that and the witness

22   will explain what he sees in those boxes.

23   MR. HADDEN: That's fine.

24   MR. OUSSAYEF: So that leaves the code snippets

25   and that's really the key issue here. There is two, there

 1   is two issues here. The first is this code which they say

 2   is available on the public version of their website. There

 3   is no way that we could have predicted that they're going to

 4   use this code.

 5   THE COURT: You can predict to a certainty now

 6   and I have the representation that you're not seeing anymore

 7   of these than they've disclosed to you, you got your expert

 8   here, he can testify on rebuttal, it's a public facing code,

 9   you had it, you had access to it, tell me what the real

10   prejudice is to you if Mr. Dunham does this this morning?

11   MR. OUSSAYEF: There is another piece of this

12   prejudice of this, this is a change in their website that

13   has happened since we initiated suit. And we have an

14   interrogatory saying if there is any changes in your website

15   from when we file suit and in the past, please tell us if

16   you think it effects infringement.

17   This was not identified as a particular change

18   in the website. I don't know what kind of argument they're

19   going to make, but I imagine it's going to be a

20   non-infringement argument and, therefore, not being

21   disclosed in our interrogatory about changes.

22   THE COURT: Let me ask you this. Has their

23   expert talked about this portion of code?

24   MR. OUSSAYEF: No.

25   THE COURT: So we know we're not going to hear

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 1      him talk about it, give an opinion that this is the basis

 2      for non-infringement; right?

 3                  MR. OUSSAYEF:  Yes, but I would argue that just

 4      shows that the fact witness should also not be making a

 5      non-infringement argument that was not disclosed to us.

 6                  THE COURT:  Right.  Okay.  Let's talk about

 7      this.

 8                  MR. HADDEN:  May I respond briefly?  This is not

 9      a change in the website.  The website is not changed.  It's

10      always been just this.

11                  THE COURT:  What is the relevance of this code

12      here?

13                  MR. HADDEN:  Sure.  The relevance is we talked

14      about that global container div.  What that does, we talked

15      about you have -- it does nothing unless it's referenced by

16      PC code.  He is going to explain this is the PC code it

17      references.  All it does is dim this background in a certain

18      situation where a user comes who has not signed up for

19      email, they want to encourage them to sign up for email.

20                  THE COURT:  Does it have anything to do with any

21      issue in this case?

22                  MR. HADDEN:  Other than just explaining to the

23      jury why we have that global container div in our web pages,

24      this is what it does, he's going to explain that.

25                  THE COURT:  Are you proposing to ask him if that
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 1   shows infringement?

 2   MR. HADDEN: No, I'm just going to tell him this

 3   is why we do it.

 4   THE COURT: And you're representing there is no

 5   change?

 6   MR. HADDEN: No, this is --

 7   THE COURT: Let me finish the question.

 8   MR. HADDEN: Sorry, Your Honor.

 9   THE COURT: I know you already know the answer,

10   but let me get the question out.

11   So are you representing there has been no change

12   to this portion of the code at any time during this case?

13   MR. HADDEN: I am. And so the weird thing is,

14   this only happens if you're sort of a new customer, never

15   done, blah, blah, blah, which is why maybe they think it's a

16   change, they just didn't trigger it.

17   THE COURT: Did you have something to add before

18   I turn back the podium?

19   MS. SHAMILOV: That's about the image quality.

20   THE COURT: We'll come back to that.

21   Mr. Oussayef, let's finish up on this one.

22   MR. OUSSAYEF: So what I heard is we're going to

23   show that the global container works one way or another, and

24   we're not going to talk about infringement. In that case,

25   there is no relevance to this. I think what the real issue

1   is yesterday we had the global container and we saw that

2   they delete, they seem to be deleting it to show here is

3   what's going to happen, and because that was expert

4   testimony, that objection was sustained. Now they're just

5   doing it in a different way. Now they're saying hey, if you

6   go to the website and you see this sign in screen, there is

7   a global container effect, and here is the technical

8   explanation and the expert information about what is

9   happening on the back-end for the global container based on

10   this signup screen.

11   And this signup screen, this circle signup

12   screen is new. That's not something that existed when we

13   filed suit.

14   THE COURT: I thought your point was that the

15   code changed. They now tell me the code didn't change.

16   MR. OUSSAYEF: Your Honor, I mean, I have gone

17   to the website myself, and the only time I have seen this is

18   very recently.

19   But setting -- I mean, so I'm not sure how to

20   resolve that dispute between the parties. But setting that

21   aside, the fact that you're relying on one particular

22   script, and the global -- let me put it this way, Your

23   Honor, the global container dispute is something that's not

24   in any expert report, but we anticipate that they're using

25   it to answer the Filepp patents. This is a sign-in screen.

 1   So there is no way we could have predicted they were going

 2   to use the signup screen to Groupon to make an argument

 3   about the Filepp patents.

 4   What they're saying is if you go to the website

 5   and there is a signup screen, then that affects the global

 6   container. And the global container is relevant to Filepp

 7   patents. And therefore the global container will affect

 8   whether there is infringement of the Filepp patents. That

 9   chain is nothing we could have never predicted.

10   THE COURT: I think we're going to have to deal

11   with arguments when we get to arguments and experts when we

12   get to experts. For now I'm overruling the objection to

13   this slide. The fact witness can talk about it. I have the

14   representation that the code didn't change. I have the

15   representation he's not going to talk about infringement.

16   There is enough reference to global containers and divs that

17   I think it's a relevant issue and the defense is entitled to

18   have some testimony about it. So that objection is

19   overruled.

20   On the deposition testimony, do you still have

21   an objection to that?

22   MR. OUSSAYEF: I mean, if he's just going to

23   respond to what -- I mean, I guess Dr. Schmidt had this

24   testimony and I worry that they're going to say Dr. Schmidt

25   misinterpreted what I said so here is what I really said.

1   He shouldn't be talking about Dr. Schmidt. If he wants to

2   say here what is I meant, I think that's a hearsay

3   discussion. I think he should just say here is the truth as

4   opposed to let me compare what I said previously and let me

5   tell you what that means and let me interpret that for you.

6   That seems like a more expert thing to do.

7   MR. HADDEN: I think it's fair for him to be

8   able to explain what testimony means when he said it, when

9   he was asked and what he's talking about.

10   THE COURT: I'm going to overrule the objection.

11   If the witness wants to talk about his own words, I'm going

12   to let him do it. They're words that are already in the

13   record. The plaintiff put them in the record.

14   The Oops code, anything more to say about that?

15   I'm it's not an experiment and what we're going to hear is

16   this is what you get when you do the wrong thing, I guess,

17   whatever it was.

18   MR. OUSSAYEF: The only thing is that that's

19   another thing that was not disclosed in expert discovery, so

20   that's, you know, the objection I'm making.

21   THE COURT: All right. Well, I hear that, but I

22   now think we have contained the universe of the potential

23   surprises to the plaintiff and I don't think it's unduly

24   prejudicial at this point.

25   Did you have more to say? I think we resolved

 1   the legibility issue, but if you have more to say.

 2   MS. SHAMILOV: Yes, I do. On the legibility

 3   issue during their case in chief in trial here, they

 4   disclosed better quality images of the exhibits they used,

 5   so the parties agreed, I have an email exchange, that a

 6   party may replace poor print or digital copies of exhibits

 7   with improved or higher digital copies. We agreed on that.

 8   That's what we did. We swapped their trial exhibits

 9   literally the night before their witnesses went. So we have

10   an agreement we can use better quality images. They did it

11   in their case in chief, and I have it in an email that was

12   just a couple days ago exchanged between the parties.

13   MR. OUSSAYEF: Your Honor, I would just say the

14   parties can use whatever the other side had before. So if

15   we disclosed -- depending on how things were scanned, there

16   might have been some slight differences in quality of the

17   scan, but anything we had access to and that we used, I'm

18   happy to have Groupon use, but if they're using a new

19   version, a higher quality version that we had no way to

20   access, that's what I would ask Your Honor to keep out of

21   this case.

22   THE COURT: We've already resolved this for

23   today. Mr. Hadden agreed to use the one that's in the

24   expert report. I'm not going to draw the line between

25   higher resolution and actually a materially new document. I

1   don't have to draw that line right now.

2   Any other issues from IBM?

3   MR. OUSSAYEF: We do have objections to

4   Mr. Davis' demonstratives as well.

5   THE COURT: All right.

6   MS. SHAMILOV: I'm not sure we're going to have

7   time for Mr. Davis today.

8   THE COURT: Let's see how far we can get.

9   MR. OUSSAYEF: Here we're kind of back to the

10   drawing board in terms of the expert testimony again.

11   THE COURT: Remind me who Mr. Davis is.

12   MR. OUSSAYEF: Mr. Davis is the alleged coder

13   who worked on the Amazon system which is, they say is prior

14   art to the '601 patent. So this deals with some -- we had

15   an authenticity dispute about some of this. I'm not

16   focusing on authenticity at this moment right here, but I'm

17   objecting to the slides.

18   So first of all, we have a website that we have

19   never seen before. This I guess is from Washington.edu. It

20   looks like an old website, so I anticipate there is some

21   kind of testimony about how this is prior art. There is

22   back and forth between the HTTP request and the session ID,

23   that seems to be a tech tutorial based on an old system that

24   we haven't seen before which would be expert testimony in an

25   undisclosed prior art theory.

1   Then here we have the employment agreement

2   between Mr. Davis and Amazon. And I think they're trying to

3   use this because in the employment agreement there is a

4   hearsay statement about I developed a technique that allows

5   the back-end systems on the right to maintain state

6   information.

7   There is no prior inventorship theory in this

8   case. This is a hearsay document. And it's completely

9   irrelevant to the case. And it would be prejudicial to us

10   to let in a statement, an employment agreement that is

11   hearsay about having, you know, allegedly having invented

12   some kind of state system when they're actually relying on

13   the system.

14   Furthermore, the parties elected prior art to

15   rely on. This was not in the election of prior art.

16   We have this version of the Amazon website which

17   was an image that was in their expert report, but we've

18   never seen this as produced during fact discovery, and their

19   expert said I don't really know what this is.

20   THE COURT: So is that an authentication

21   objection?

22   MR. OUSSAYEF: So that objection is that it was,

23   it was untimely disclosed to us. And because their expert

24   didn't know what it was even during expert discovery, we had

25   no opportunity to investigate the origin of that document.

1   And now we get into a real problem here, which

2   is Mr. Davis has apparently reconstructed a system that he

3   says would appear like this on Amazon. That is what I'm

4   understanding, although I don't know exactly how it's going

5   to be used. This document here was never produced. I think

6   what Groupon is going to say is that if you compile our HTML

7   code, here is what it would look like. But that was never

8   disclosed to us.

9   And certainly Mr. Davis's analysis later on

10   about this is, how it would look like, and let me show you

11   how it works is way, way into the expert testimony area; and

12   we had no idea that this was something that was going to

13   come up in this case.

14   THE COURT: Don't you expect he is going to

15   testify this is code that I wrote?

16   MR. OUSSAYEF: Yes. So he should use the

17   exhibit that was produced to us, which is the source code

18   files, if that is the argument or if that is the testimony

19   he would like to give.

20   THE COURT: All right. But you are not actually

21   objecting to him as a fact witness talking about how this

22   code works and what it would appear to the user to be doing

23   and that sort of thing, are you?

24   MR. OUSSAYEF: Well, presenting a new --

25   THE COURT: Putting aside this document. You

1   broadly I think suggested, that I don't think you meant to

2   but I want to make sure, that he is not here to testify

3   about how the code he wrote actually works.

4   MR. OUSSAYEF: I think it's fine to testify

5   about how the code he wrote actually works. I think --

6   THE COURT: And how you say as a user would

7   interact with it, because I don't see the code but I

8   interact with the facing screen. You object to him

9   testifying about that?

10   (Counsel confer.)

11   MR. OUSSAYEF: Yes. So if it's based off of the

12   code that they produced, then that's fine. If it's a new --

13   if it's code that hasn't been produced, then we're not fine

14   with that.

15   So certainly the first few slides about the

16   University of Washington has nothing to do with the code

17   that was identified to us.

18   This screen I actually don't think necessarily

19   corresponds to the -- I don't know what the correlation is

20   between this screen and the code. I'm not -- to be honest,

21   I haven't gone and tried to compile the code and see what

22   pops out here.

23   So if there is -- I mean I guess I want to know

24   where this comes from from Groupon and whether this is one

25   code file or another code file, et cetera.

   1   THE COURT: Okay. Are there more or is that it?

   2   MR. OUSSAYEF: I mean this just goes into more

   3   detail here about how he is going to use this.

   4   THE COURT: This seems to be a subset of the

   5   document you just showed me.

   6   MR. OUSSAYEF: Exactly, Your Honor. And the

   7   rest of these slides fall into a similar category as what I

   8   just described.

   9   THE COURT: Okay. Let me hear from Groupon.

  10   (Counsel confer.)

  11   MR. OUSSAYEF: I objected to the slides I went

  12   through, so I'm sorry if I don't know exactly which.

  13   THE COURT: Let's start with the Washington

  14   website.

  15   MS. SHAMILOV: Yes. Yes. Sure. To be clear,

  16   our technical expert will not be talking about the

  17   University of Washington website. This is not prior art.

  18   There is no invalidity hearing based on that at all. What

  19   Mr. Davis is going to get up and say I designed Amazon

  20   system. I wrote the code, and that is what the code did,

  21   and I knew how to do what I did at Amazon because I was a

  22   programmer at the University of Washington before and I

  23   implemented it there. And so when I came to Amazon, I

  24   brought it with me.

  25   They deposed Mr. Davis a full day. Here is what

 1 he said in response to one of counsel's questions:

 2   This is an implement -- he was talking about

 3 implementation of Amazon's system.

 4   This is an implementation of the same system,

 5 the same system that I designed before I worked on Amazon,

 6 in 1993.

 7   Counsel never followed up, never asked a single,

 8 another question about what was that system you designed in

 9 1993? What did you talk about?

10   He told them that I did it before I showed up at

11 Amazon. They never followed up. But this is not --

12   THE COURT: Hold on.

13   MS. SHAMILOV: Yes.

14   THE COURT: I think the objection is to the

15 image. What do you say about that?

16   MS. SHAMILOV: This is just, he is going to say

17 that when I worked at the University of Washington, I used

18 HTTP and HTML. And so what happen is when I designed that

19 system at the university, the way it worked like HTTP would

20 work and HTTP system request would go to the server, the

21 server will assign session ID, that code is there. It came

22 bang to the website, back to the computer website shown.

23   THE COURT: The screen image.

24   MS. SHAMILOV: You mean the actual web? It's a

25 mockup. This is not -- this is a demonstrative. It's just,

 1   it could be any website. I can just put the University of

 2   Washington there and just have random blank lines. This is

 3   literally a demonstrative. I think the purpose --

 4   THE COURT: So he is not purporting to

 5   testify --

 6   MS. SHAMILOV: That that --

 7   THE COURT: -- this is what the screen looked

 8   like.

 9   MS. SHAMILOV: Not at all.

10   THE COURT: -- in 1993.

11   MS. SHAMILOV: No, no. Not at all. This is

12   literally just to say, yeah.

13   THE COURT: If I understood correctly, the

14   objection was to the screen portion; is that right?

15   MR. OUSSAYEF: I think any testimony about an

16   alleged prior system, that he is going to say this did it

17   too, is prejudicial to us. Because we went through an

18   entire process of -- and hopefully this will work with the

19   computer -- of, you know, identifying --

20   THE COURT: Right.

21   MR. OUSSAYEF: -- prior art references.

22   THE COURT: Nobody is here to argue that the

23   Washington system invalidates your patent.

24   MR. OUSSAYEF: But --

25   THE COURT: He is just talking about, hey, part

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 1    of my experience is I designed a system for the University

 2    of Washington.  So I had understood you were concerned with

 3    the screen that was never disclosed to you.  Now I'm told

 4    they'll make that black, they'll replace it with an image of

 5    the University of Washington.  Do you still have an

 6    objection?

 7              MR. OUSSAYEF:  Yes, Your Honor.  If he is going

 8    to testify about a prior system that he says also did the

 9    invention, that is very prejudicial.  Because there is going

10    to be no testimony on that.  It's all going to be about the

11    Amazon system.  So he can say I was working generally on,

12    you know, computer technologies.  I was working at this

13    university, but if he says --

14              THE COURT:  All right.  The objection is

15    overruled.  I am going to let him testify about what he did

16    before, what his experience was.  That is fact testimony.

17    And no expert is going to say that the University of

18    Washington system is in any way invalidating any

19    patents-in-suit.

20              MR. OUSSAYEF:  Okay.

21              THE COURT:  So let's move on.  What about the

22    employment agreement?

23              MS. SHAMILOV:  The employment?

24              THE COURT:  And, by the way, get rid of this,

25    the mockup screen image.
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 1              MS. SHAMILOV:  Like a logo, University of

 2    Washington.

 3              THE COURT:  Yes, of the university or something

 4    like that.

 5              MS. SHAMILOV:  We'll try to do that.

 6              The employment agreement was produced to the

 7    other side.

 8              THE COURT:  It's a hearsay objection, let's go

 9    to.

10              MS. SHAMILOV:  He is going to talk about to say:

11    And here is when I came to Amazon.  I specifically told

12    Amazon that I sort of developed this thing at the University

13    of Washington about session IDs going back and forth and I

14    make sure that it goes into my employment agreement and told

15    Amazon I did it and you, Amazon, cannot own it.  It's just

16    that sort of he is describing his, sort of the discussion

17    how he came about to be hired by Amazon, and how he has his

18    story.

19              THE COURT:  I don't know there is any objection

20    to telling that story.

21              MS. SHAMILOV:  Yes.

22              THE COURT:  But there is an objection to

23    admitting and therefore showing the jury the document.  The

24    objection is hearsay same.  Is it hearsay or not hearsay?

25              MR. HADDEN:  I don't think it's hearsay.
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 1              THE COURT:  Because?

 2              MR. HADDEN:  It goes to the truth of the matter.

 3    It's just a document where he says something.

 4              THE COURT:  Well, I'm sorry.  Hold on.  I mean

 5    that could work except I understand the testimony is going

 6    to be, I did invent it and I did tell them that.

 7              MS. SHAMILOV:  It's an ancient document, 1994

 8    date, so with that exception it's not hearsay.  The document

 9    is dated 1994.

10              MR. HADDEN:  I don't think it's hearsay.  The

11    statement is I told them that, and that that is in the

12    document.

13              THE COURT:  But I think you want him to further

14    say I did invent this system.

15              MS. SHAMILOV:  No.

16              MR. HADDEN:  No.

17              THE COURT:  Hold on.  Let me finish.  I did

18    invent the system at the University of Washington.  He is

19    not going to testify to that?

20              MR. HADDEN:  No, he is going to testify I did

21    this, like she talked about, I did this at the University of

22    Washington.  And then when I came to Amazon, I wanted to

23    make sure that it was free for everyone to use so I told

24    Amazon this is what I did.  It's mine.

25              That's all he is going to say.  And the "this"
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1   is whatever he said. He is not saying anything he said in

2   that agreement is true or false. He just said I made a

3   statement to Amazon. Whatever it is, it is mine and not

4   yours.

5   MS. SHAMILOV: And no expert again will use, our

6   expert will not use, this is not going to be used as prior

7   art. Our expert is not going to talk about the employment

8   agreement.

9   THE COURT: Right. Do you want to come back on

10   this one.

11   MR. OUSSAYEF: So --

12   MS. SHAMILOV: Go ahead.

13   MR. OUSSAYEF: Can we get that document?

14   Thanks.

15   So here is what he said explicitly: I have

16   developed a technique that allows the backend to maintain

17   state. That is an out-of-court statement, and that that is

18   exactly what they intend to prove.

19   Any purpose for, hey, this is to show they told

20   Amazon, that is not relevant to any issue in this case.

21   And even if it were relevant to some issue, the prejudice

22   of putting something on the screen that is an out-of-court

23   statement and that is said for the truth that I have

24   developed a technique that allows the backend to maintain

25   state is very prejudicial because the jury is going to

 1   think, hey, here is a document that says that. It must be

 2   true. And that is clear hearsay. That is the purpose to

 3   which it is being used; and the fact that they say we

 4   informed Amazon, there is no relevance to that.

 5   THE COURT: What about the ancient document

 6   argument?

 7   MR. OUSSAYEF: The only way you can figure out

 8   that this may be an ancient document is from the date on

 9   the document, which is also hearsay. There is no indication

10   about where this came from. And this is not the type of

11   exception that makes sense for something that is asserted

12   for the truth of the matter.

13   THE COURT: It is a statement by the witness who

14   is coming here. You can cross-examine him on it. How is

15   this problematic or inconsistent with the Rules of Evidence?

16   MR. OUSSAYEF: So the witness can testify to it.

17   We would have no problem to that. That would not be hearsay

18   because he would be in court. And I think if he wants to

19   say I came up with this idea, he can say that. But that is

20   not what is happening here. He is putting up a document to

21   try to corroborate this, but it's hearsay. So if he wants

22   to testify about how I did it before, he should be able to

23   say that using testimony as opposed to.

24   THE COURT: Is there any dispute about what the

25   date is he went to work for Amazon?

 1   MR. OUSSAYEF: I'm not sure there is a dispute

 2   about when he went to work for Amazon.

 3   THE COURT: So isn't there sufficient indicia of

 4   reliability, the date that the document has on it? I think

 5   we all know an employment agreement most likely is signed

 6   before you start working, right?

 7   MR. OUSSAYEF: Yes, that's right, Your Honor.

 8   I think the issue is not how to confirm the date but just

 9   how to confirm the statement that is in here.

10   THE COURT: All right. I'm going to overrule

11   the objection. I'm not persuaded that it's not admissible

12   as hearsay, so let's move on to the next one, Ms. Shamilov.

13   MS. SHAMILOV: I think this was the next one.

14   THE COURT: The image of an Amazon website.

15   MS. SHAMILOV: Yes. This was shown in the

16   opening. They did not object to it. He is just going to

17   say when I developed the website in 1995, I ran it, operated

18   it. This is just a visual depiction.

19   THE COURT: I'm being told today it was not

20   disclosed in a timely manner.

21   MS. SHAMILOV: It was produced. It was produced

22   to the other side, and this image is in our expert report.

23   THE COURT: Right. But the expert apparently

24   didn't know where it came from.

25   MS. SHAMILOV: But I'm not admitting it into

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 1    evidence.  This is a demonstrative.  I'm not going to put

 2    it into evidence.  All Mr. Davis is just going to explain,

 3    I developed it and this is an image that depicts how my

 4    website -- how the website looked in 1995, and I know it

 5    because I ran it, I built it, I maintained it.  I'm not

 6    going to move it into evidence.  It was shown in our

 7    opening.  They do not object it to.

 8              THE COURT:  All right.  I'm overruling that

 9    objection.  I think there is one left.

10              MS. SHAMILOV:  Yes.

11              THE COURT:  Well, of them.

12              MS. SHAMILOV:  Yes, Your Honor.

13              THE COURT:  What is this document?

14              MS. SHAMILOV:  So this is not an experiment.  We

15    did have access to any other source code they didn't have.

16    Literally, this is the template files that are thrown out of

17    their summary judgment motion.  They have had it.  They

18    examined Paul Davis on it.  You can open any document

19    through various -- oh, so you can open this in a text file,

20    it will look like this.  If you open the template file in a

21    browser, it will look like this.

22              This is the, this is the source code.  It is not

23    a compilation.  It not running of anything.  It is literally

24    a file that they have, that they have examined him on, that

25    they put in summary judgment, opened through a web browser.
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 1   And it depicts what the user would see when that template

 2   file that Mr. Davis will explain to the jury he wrote was

 3   ran by the system, what the user would see, what the web

 4   page would look like to the user because that is what the

 5   template file did.

 6              No experiments, no compilations whatsoever.

 7   Literally, the file that they have just opens with the web

 8   browser.  That's all it is.

 9              THE COURT:  So that is where I'm getting lost

10   because I'm being told this was never disclosed.  You're

11   saying it is all over their reports and their motions.  Have

12   you, are you trying to say you have done something to it,

13   something simple?

14              MS. SHAMILOV:  No, I didn't do anything.  I just

15   opened the file.

16              THE COURT:  I mean opening a file might be

17   something.  I don't know.  But when Mr. Oussayef says to me

18   if I understood him correctly this was never disclosed and

19   you tell me they have had it for a long time, are we talking

20   about the same thing?

21              MS. SHAMILOV:  Absolutely.  This is a file

22   produced, a template file, a template file that is just

23   opened with a web browser.  I didn't -- there is no

24   manipulation done whatsoever to the actual file.  Just

25   opened it.
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1   THE COURT: Did you produce it to them opened?

2   MS. SHAMILOV: How do I produce the file opened,

3   Your Honor?

4   THE COURT: I don't know.

5   MS. SHAMILOV: A file is an electronic fees

6   piece of data; right? It's on the source code. So they

7   came to inspect the source code as part of the source code.

8   So it's not a hard copy. So they had files, you open those

9   files with a program like a Word document or, you know,

10   Excel, right? You just open it. I just opened an

11   electronic file.

12   THE COURT: Let me see if I understand. You

13   gave them a bunch of source code.

14   MS. SHAMILOV: Well, Amazon did. Amazon

15   produced it.

16   THE COURT: Okay. Amazon produced the source

17   code. You both have the same source code.

18   MS. SHAMILOV: Yes.

19   THE COURT: It's a bunch of lines of code. To

20   generate this document, you took a browser and pressed go

21   or something and ran that source code and then printed the

22   result.

23   MS. SHAMILOV: No. No. No.

24   THE COURT: Help me understand.

25   MS. SHAMILOV: Yes. So all I did is -- so

 1   because these are template files, they have URLs on them,

 2   and so all I did, I just pull up it into the browser to see

 3   with the template. So the purpose of the template file is

 4   how the user would see the page. So the template files

 5   generate the page so you use those in a browser.

 6   So I just looked at it as a file in the browser

 7   to see how the page is generated. There was no manipulation

 8   to the file. Their expert inspected the source code. He

 9   opened it. I mean I don't know how he opened it. He could

10   have inspected it. He would have just opened this file with

11   a browser. That is what he would see.

12   THE COURT: What browser did you open it with?

13   MS. SHAMILOV: Whatever I have on my computer,

14   Explorer.

15   THE COURT: And when did you open it?

16   MS. SHAMILOV: This file? Throughout the case,

17   once it was produced. I looked at through my Explorer to

18   look at it and then to generate the demonstrative.

19   THE COURT: And if it's true, why was it never

20   produced in this template form open?

21   MS. SHAMILOV: But that -- because how do I do

22   that? They would object that I opened it and produced the

23   version. They would do exactly the same thing. I mean I

24   gave them the source code, right?

25   The purpose is there is a source code. They

 1   have an expert who went and looked at it who presumably

 2   knows how to look the a template files. I'm not supposed to

 3   instruct or teach their expert how to open specific source

 4   code on files, specific source code files to see, you know,

 5   the details of it. I just -- right? I mean I'm not

 6   supposed to teach their expert how to review source code.

 7   But there was absolutely no manipulation to

 8   this file. They had full disclosure of the template. They

 9   deposed Paul Davis about it. They're in their summary

10   judgment. There is no prejudice whatsoever, what this does.

11   Mr. Davis will say these are the templates

12   files. The template files were mock-ups of the web pages.

13   If you open it, here is the mockup of the web page, and here

14   is what the user would see: 1, 2, 3, 4. And it is in this

15   file. It is source code template file.

16   MR. HADDEN: Just to ...

17   THE COURT: Yes.

18   MR. HADDEN: Yes, it's just like any other HTML

19   file. You can view it as text or you can view it in a

20   browser. And this is just a HTML file. You can open it

21   with Notepad or you can open it in a browser. You open it

22   in a browser, it looks like this. If you open it in

23   Notepad, it has all the tags in there.

24   THE COURT: All right. Mr. Oussayef.

25   MR. OUSSAYEF: I think one thing that is being

1   lost here, Your Honor, is there was a protective order in

2   this case. We had to review the source code in native form

3   in a locked down room on a computer that we could not use to

4   manipulate or open in a browser or do anything else to the

5   source code files. So while it is easy for them to take the

6   electronic version of the code and put it into a browser and

7   then disclose it to us last night, for us, we didn't have

8   that opportunity.

9   THE COURT: Hold on. You never, in the years of

10   this case, had the opportunity to open in a browser the

11   Amazon source code?

12   MR. OUSSAYEF: Yes, that's correct, Your Honor.

13   So let me give a little bit more context.

14   According to the protective order, source code

15   is very sensitive. So what that means is that we need

16   to be in a room with the source code review computer, and

17   that source code review computer is locked down so we're not

18   allowed to take the actual native versions. We can take

19   pictures of the files but not the actual native versions.

20   So that means we don't have the opportunity to

21   take the native versions back home with us and then open it

22   in a browser or open it in some other way. So we did not

23   have the opportunity to display this kind of screen and then

24   take a screenshot and then be able to analyze it in the way

25   that they're doing.

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 1              THE COURT:  Did you ever seek that opportunity?

 2              MR. OUSSAYEF:  Well, we had source code.  We

 3    had a protective order in this case, and to think -- I mean

 4    we do not predict that this type of issue would come up with

 5    the protective order regarding the source code.  It didn't,

 6    it didn't come to mind that, hey, maybe at trial the night

 7    before, someone will come up with this screen so we should

 8    seek to modify the protective order to do that kind of

 9    analysis.

10              So I don't think it's something that would

11    have logically come to mind during discovery because we did

12    not know this was going to be a tactic they would take as

13    opposed to, for example, compiling the whole, the whole

14    Amazon system and making a server out of it or doing a whole

15    bunch of different things.  I mean it's just one of a number

16    of different ways that they could deploy the source code

17    that we couldn't do in a way we couldn't predict.

18              THE COURT:  Is it correct to your understanding

19    as a factual matter that this type of image is what you

20    would generate if you simply took the source code and opened

21    it in a browser?

22              MR. OUSSAYEF:  Honestly, Your Honor, I don't

23    know because we didn't have that opportunity.

24              THE COURT:  And it was not predictable that they

25    would want to show the jury what, if I understand this
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1   correctly, what a user would see in interacting with this

2   system?

3   MR. OUSSAYEF: It wasn't predictable that this

4   is what would be the end result or that this particular file

5   would be the one that they would choose out of the thousands

6   and thousands of files on the source code computer.

7   THE COURT: And what is your contention as to

8   when they should have told you that?

9   MR. OUSSAYEF: When they should have told us?

10   During expert discovery I would say. I mean, I think that's

11   a logical point at which both sides are saying here is what

12   our experts are saying, I compiled the system in a visual

13   web page, here is how it looked, other expert, would you

14   like to respond to that and tell me whether you agree with

15   how it looked and whether I'm misreading the source code or

16   whether I'm opening it in a modern browsers versus an old

17   browser and whether that has any affect on how it works, et

18   cetera, et cetera, there is a million different ways of how

19   it could impact expert discovery in the case.

20   THE COURT: Ms. Shamilov.

21   MS. SHAMILOV: They definitely did have an

22   opportunity. The protective order says they can ask for any

23   tool to load to the laptop, and we're to load it so they can

24   use it. They have asked for a whole bunch of tools to be

25   loaded on the source code review laptop and we loaded for

 1   their expert to use. They never asked us to load a web

 2   browser on the laptop computer. They had an opportunity to

 3   ask for it. There are not thousands of files, there is a

 4   handful of template files in the source code that Amazon

 5   produced.

 6   They knew that these template files generate how

 7   the web page looks because that's what -- these template

 8   files are discussed in our expert report. The rebuttals

 9   talk about the templates files, they deposed Paul Davis

10   about it, about the template files, there is no dispute that

11   these template files is what generated and matched what the

12   user will see.

13   THE COURT: How about the specific template

14   files that you want to use with Mr. Davis --

15   MS. SHAMILOV: They're only files --

16   THE COURT: You have the answers, I know.

17   MS. SHAMILOV: I'm sorry.

18   THE COURT: The specific ones you want to use

19   with Mr. Davis, were they disclosed or were they not

20   disclosed?

21   MS. SHAMILOV: So they disposed Mr. Davis and

22   talked to him about the template files. They talked about a

23   whole bunch of template files with him. At what point -- we

24   disclosed the files, the source code exhibits for the

25   pretrial order last night. At what point am I supposed to

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 1    tell them this is what I'm telling them Paul Davis is going

 2    to talk about.

 3                 THE COURT:   Why shouldn't I have you use the

 4    ones that you did disclose previously about Mr. Davis?

 5                 MS. SHAMILOV:   I did -- you mean, why can't I --

 6    basically you're asking me why you shouldn't let me to show

 7    what this would be?

 8                 THE COURT:   If I understand correctly, you gave

 9    them all the source code, but you also gave them some subset

10    of templates.   Why not use the subset of template files that

11    you used?

12                 MS. SHAMILOV:   This is.   These are the template

13    files.

14                 THE COURT:   But you didn't disclose them until

15    last night they're saying.

16                 MS. SHAMILOV:   We did.   They're in our expert

17    reports.

18                 THE COURT:   The specific ones you want to use

19    today?

20                 MS. SHAMILOV:   Correct.

21                 THE COURT:   Is that true?

22                 MR. OUSSAYEF:   To be clear, Your Honor, the

23    templates are in the expert report.   The product, opening

24    them up in a browser is not in the expert report.

25                 THE COURT:   The specifics images she wants to
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 1    show Mr. Davis?

 2              MR. OUSSAYEF:  They're not in expert report.

 3    That image is nowhere to be found in this case until last

 4    night.

 5              THE COURT:  Are any similar specific images

 6    disclosed?

 7              MR. OUSSAYEF:  No, Your Honor.

 8              THE COURT:  And what again is the relationship

 9    between the templates and this specific image?

10              MS. SHAMILOV:  A template is you open, you say

11    open this template in a web browser, that's it, it's how you

12    open the template files.  Literally this is what you see if

13    you open the template in browser, that's all it is.

14              THE COURT:  So I'm being told what I'm looking

15    at is not the template.

16              MS. SHAMILOV:  It is.

17              THE COURT:  How does it differ, or if it's a

18    question to him, I'll ask him.

19              MR. HADDEN:  Can I try?

20              THE COURT:  Try, please.

21              MR. HADDEN:  You just have a file, it's like if

22    you look at, I don't know, you view the source on your

23    browser and you see the HTML.

24              THE COURT:  No.

25              MR. HADDEN:  It's just a document, like a Word
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1   document.   Have you ever used Word Perfect back in the day?

2   THE COURT: I have used Word Perfect.

3   MR. HADDEN: There is a way you can hit

4   something and see the tags, like a formatting tag.

5   THE COURT: Yes.

6   MR. HADDEN: That is what the HTML looks like if

7   you do it in Notepad or Word.   Or if you instead do it in a

8   browser, it looks like a web page.   So basically this is

9   what you see in a browser, what you see if you look at it in

10   a Notepad is this with a bunch of tabs, like the Word

11   Perfect with tags.

12   THE COURT: Where does template come into?

13   MR. HADDEN: Template, it's called a template

14   because it's a web page that's not completely filled out.

15   That's why it has these little funny characters.   What

16   Amazon would do is they would take this which is a piece of

17   HTML, a little file and then their programmer would fill in

18   the blanks before we give it to the user.   You can either

19   view it as HTML with the tags, or you can just look at it in

20   the browser and the tags go away and you get the formatting

21   like you do in Word Perfect.

22   It's just, it's exactly the same electronic file

23   that we gave them that they deposed Mr. Davis about.   It's

24   described in detail in our expert reports and their expert

25   reports.   This notion that oh, my gosh, it's HTML and I

1   wouldn't have thought to look at it in a browser is just

2   kind of silly.

3   MR. OUSSAYEF: Your Honor, there is nothing that

4   looks like that in their expert reports.   There simply is

5   not.   And if there is, I would ask that Groupon's counsel

6   identify where they think it is, because there is nothing in

7   the expert reports.   We have looked.

8   And furthermore, the template file they rely on

9   in their expert report is this one here, a user-review.cpp.

10 My understanding is that they're not relying on that

11 template file to produce the image we see.

12   There is two problems here.   One, we have never

13 seen the image they just showed up there.   That is no where

14 in the expert report.   If they have an image that looks like

15 what Mr. Davis is putting up there, you know, I would like

16 to see it.

17   And second of all, this is what is described in

18 the expert report, user-review does CPP.   That's the only

19 template file that's discussed in the expert report.

20 Whether the image or the underlying file, neither of those

21 are user-review.cpp.   If they can show in the expert report

22 where that particular template file is disclosed or where

23 the image is in particular, then they should be permitted to

24 do it, but if they can't, they should not be permitted to

25 use that.

1   THE COURT: I'm overruling the objection.

2   Admittedly I'm not an expert in the computer science and I'm

3   struggling to understand the relationship of all these

4   concepts here.   I mean, it's the plaintiff's objection.   I'm

5   not persuaded by the plaintiff that there is something

6   improper going on here that is unfairly prejudicial to the

7   plaintiffs.

8   The defendants disclosed or you all had the same

9   source code.   I have no reason to think that you didn't all

10   have a fair opportunity to run this same code on a browser.

11   And I'm told by the defendants that the template really

12   can't be any true surprise to the plaintiff.   And you will

13   have your expert back here if you want on rebuttal, so the

14   objection is overruled.

15   Obviously we're now a half hour into the jury's

16   time.   Are there other objections from IBM?

17   MR. OUSSAYEF: Just quickly.   We do have an

18   authenticity objection to all of the source code from

19   Amazon.   My proposal to Your Honor is that we hear the

20   evidence today regarding Ms. Pomeroy will be a witness that

21   is allegedly testifying about authenticity about the source

22   code and also Mr. Paul Davis, and then at the end, we can

23   resolve those authenticity objections because I think in

24   fairness we need to hear how this evidence comes up.

25   THE COURT: So you reserve the right to object,

1   it would not be considered waived?

2   MR. OUSSAYEF: That's correct. I just want to

3   clarify given Your Honor's procedure that say no objection

4   when an exhibit is offered into evidence, we would like to

5   object later on.

6   THE COURT: Any objection from Groupon to that

7   process whereby IBM when asked will say we don't object, but

8   we all know they reserve their right to object?

9   MS. SHAMILOV: I have sort of more of like a

10   practical question for the Court with respect to that. So

11   they do have an authentication objection where I think their

12   argument is there is no chain of custody for the document

13   throughout, sort of the origination to production. That is

14   not something that the jury will be deciding, right, that is

15   an issue that the Court has to resolve.

16   Ms. Pomeroy is here to explain sort of where the

17   source code CD that Paul Davis will testify was retrieved,

18   she's a paralegal in our firm and what happened to them

19   until it got -- that is not a factual issue for the jury

20   that has anything to do with the case that the jury would

21   have to be deciding. And so I was wondering whether the

22   Court would like to resolve that issue outside of the jury.

23   She was deposed yesterday. We can hear argument. I'm just

24   concerned --

25   THE COURT: Sure. What is the plaintiff's

 1   position? Are you arguing this is a fact issue for the jury

 2   or it's an issue for me?

 3   MR. OUSSAYEF: Certainly, Your Honor, it's

 4   definitely a fact issue for the jury because whether the

 5   source code is actually from the date that Groupon says it

 6   is a key issue in this case.

 7   THE COURT: All right. Ms. Shamilov, on what

 8   basis do you assert that it's an issue for me and not for

 9   the jury?

10   MS. SHAMILOV: Here are the two things. The

11   objection that I understood just now that was articulated is

12   whether the source code that Paul Davis is going to be

13   testifying about was dated in 1985. Paul Davis is going to

14   take the stand and say this is the code that I wrote while I

15   was at Amazon. I was employed there at that time. I

16   operated, I know this code, this is the code, that's the

17   date. So that's the fact that the jury needs to hear.

18   We don't need Ms. Pomeroy to come here and say

19   well. I work at Fenwick & West and I retrieved these CDs

20   from the vault that I had from a previous lawsuit and what

21   happened to them.

22   THE COURT: If they're going to argue that

23   that's probative of whether or not the files were actually

24   created at the time that Mr. Davis is going to say, why

25   isn't that all just something that the jury has to consider?

 1   MS. SHAMILOV: There is absolutely nothing that

 2   Ms. Pomeroy can say there that will allow them to do that.

 3   The code is dated 1995. Ms. Pomeroy can only talk about the

 4   CD's and where they came from, and how they were used in

 5   2009. Right? Paul Davis is going to say this is the code

 6   that I wrote, this is what ran the website in 1995. Why

 7   does the jury --

 8   THE COURT: I'm still struggling to understand,

 9   what rule or authority can you point to that says that's an

10   issue for me and not the jury?

11   MS. SHAMILOV: Because the authentication issues

12   that deal with the chain of custody, that's for the Court to

13   decide, not for the jury.

14   THE COURT: You keep saying that. I don't know

15   that that's true. I would like to understand if it is.

16   MS. SHAMILOV: I can find -- I will find a cite

17   for you, Your Honor.

18   There is also one more thing with Ms. Pomeroy.

19   We have a lot of stuff going on today. She is a single mom,

20   and she flew across country with her two year old here. She

21   has very limited time and she has to go back home. If we

22   decide to call her today, I ask that we do it out of order.

23   THE COURT: If we're ever calling her, we should

24   call her today is your request?

25   MS. SHAMILOV: That's what I'm asking.

1   THE COURT: Any objection to that?

2   MR. OUSSAYEF: Of course not, Your Honor.

3   MS. SHAMILOV: It may be out of order.

4   THE COURT: You can explain that it's out of

5   order to the jury.

6   MS. SHAMILOV: There is one more issue that's

7   important for us to raise before the jury.

8   THE COURT: At this point, the plaintiffs are --

9   I'm allowing them to reserve the right to argue that the

10   code is not authentic. And if you want to take a shot at

11   persuading me or showing me the authority that somehow that

12   is an issue for me and not the jury, you'll have to do it

13   before we get to the testimony, otherwise, we're definitely

14   going to get to Ms. Pomeroy and accommodate her schedule and

15   move forward from there.

16   Are there other issues for IBM that could come

17   up in your limited time between now and one o'clock?

18   MR. OUSSAYEF: No, Your Honor.

19   THE COURT: Ms. Shamilov, you have something?

20   MS. SHAMILOV: Rule 104 that the court must

21   decide any preliminary questions of whether the witness is

22   qualified or evidence is admissible. Authentication

23   generally goes to admissibility, Your Honor. That's the

24   rule I can point to.

25   THE COURT: I heard you say the court might.

1   MS. SHAMILOV: Must.

2   THE COURT: Must.

3   MS. SHAMILOV: Yes.

4   THE COURT: Under Rule 104 I must decide on

5   authentication.

6   MS. SHAMILOV: Right.

7   THE COURT: I'll take a look at that.

8   There was something else, though?

9   MS. SHAMILOV: Yes, Your Honor. I know we have

10 our JMOL, the Rule 50 motions, but there is --

11   THE COURT: We will get to that.

12   MS. SHAMILOV: But one of those points it's

13 important for us to discuss with the Court today. So IBM

14 has a claim of willfulness. They did not put any evidence

15 whatsoever in their case in chief on willfulness. They now

16 cannot do that by cross-examining our witnesses on it

17 because the jury will absolutely have no way to distinguish

18 between what was presented in their case in chief and what

19 was not.

20   Now counsel for IBM in his opening statement

21 said this, "If it was cheap and it was easy to design around

22 these patents, and all of this could have been avoided if

23 the executives at Groupon said to themselves, you know what,

24 it's cheap and it's easy, but we're not going to go to do

25 it. Damn the torpedoes, let's charge ahead. Well that is

1   willful infringement.

2   Setting aside that that is not a definition of

3   willful infringement under any legal standard, this is what

4   they're going to try to do through the cross-examination.

5   They are going to come back at the closing and see, they all

6   said that and that means they're willfully infringed. They

7   cannot prove willful infringement through cross-examination

8   of our witnesses. It's highly prejudicial. It is improper.

9   They must do it in their case in chief. They haven't.

10   There is not a single piece of evidence they can point to in

11   their case in chief on that issue.

12   So I understand that the Court's general

13   practice is to defer decisions on Rule 50(a), and we can do

14   that here, but what I would ask is that the Court instruct

15   that IBM cannot elicit testimony from our witnesses through

16   cross-examination to prove willfulness.

17   THE COURT: If they survive a Rule 50 motion on

18   willfulness, then they can elicit testimony from your

19   witnesses relating to their case, can't they?

20   MS. SHAMILOV: They can ask them -- they can

21   cross-examine them within the scope of my direct, they can

22   do that. I'm not going to open the door on anything on

23   willfulness for them to discuss.

24   We actually proposed in our pretrial order that

25   the scope of cross-examination could be beyond the direct so

1   the witnesses can be called only once. They opposed. Your

2   Honor went with them and that's what we have. We cannot

3   have crosses to be outside the scope. They actually did

4   that yesterday with our witness --

5   THE COURT: Well, no. As happened yesterday and

6   will happen throughout the rest of the trial, if there is a

7   dispute over that, I will resolve it. I resolved that

8   nothing was outside the scope of the direct and I'll make

9   those calls going forward if I have.

10   Going back to my question, and perhaps I have to

11   rule on the Rule 50 motion at this point with respect to

12   willfulness. But if they do survive the motion or more to

13   the point if I don't grant the motion, your motion with

14   respect to willfulness, then of course within the scope of

15   what I allow, that is the scope of the direct, they can

16   elicit testimony and later argue that even though it came

17   out on cross, it's helpful to their case. Right?

18   MS. SHAMILOV: That's true. But if they do not

19   survive that motion, letting them to do cross-examination is

20   highly prejudicial.

21   THE COURT: Hold on a second. Go ahead with

22   your motion.

23   MS. SHAMILOV: Pursuant to Federal Rule of Civil

24   Procedure 50(a), Groupon moves for judgment as a matter of

25   law of no willful infringement based on IBM's utter failure

1   to proffer any evidence in support of its claim. This

2   motion rest on two legal principles:

3   First, the patentee bears the burden of

4   persuasion and must proffer evidence -- as part of its

5   case-in-chief -- showing willful infringement by a

6   preponderance of the evidence. See *Norian Corp. v Stryker*

7   *Corp.*, 363 F.3rd 1321, 1332, Federal Circuit 2004; and *Halo*

8   *Elecs. v Pulse Elecs, Inc.*, Superior Court decision 136 S.Ct

9   1923, 1934 from 2016.

10   Second, a plaintiff must present evidence on

11   issues on which it has a burden as part of its case-in-chief

12   and may not correct its evidentiary failures by introducing

13   testimony and evidence under the guise of rebuttal or

14   cross-examination. And that is *Emerick v U.S. Suzuki* from

15   the Third Circuit, 750 F.2d 19, 22.

16   Plaintiff, IBM having now concluded its

17   case-in-chief, did not elicit any testimony or introduce any

18   evidence tending to show that Groupon willfully infringed

19   the patents-in-suit, let alone sufficient evidence on which

20   a reasonable juror could find in its favor on the issue of

21   willfulness. And IBM can not remedy its failure -- and

22   avoid judgment against it as a matter of law -- through

23   cross-examination of Groupon witnesses, when it failed to

24   meet its burden in its case-in-chief. Groupon is entitled

25   to judgment as a matter of law of no willful infringement.

1   Should the Court decline to grant Groupon

2   judgment as a matter of law, IBM should be precluded from

3   eliciting testimony or introducing evidence in support of

4   its willful infringement claim through cross-examination of

5   Groupon witnesses.   Such cross-examination would be improper

6   for three reasons.   It would be outside the scope of

7   Groupon's direct examination.   It would disrupt Groupon's

8   presentation of its case-in-chief.   And it would unduly risk

9   confusing the jury and prejudicing them against Groupon and

10   its witnesses.

11   The legal standard is that the grant or denial

12   of a motion for judgment as a matter of law is reviewed

13   under the law of the regional circuit of the district court.

14   That's in *Calico Brand, Inc. v. Ameritek*, a Federal Circuit

15   decision found at 527 Fed App'x 987, 992-993.   Under Third

16   Circuit law, a court may render judgement as a matter of law

17   after the moving party is fully heard on the issue at trial

18   if there is no legally sufficiently basis for a reasonable

19   jury to find for the party opposing the motion on that

20   issue.   The question is not whether there is literally no

21   evidence supporting the party against whom the motion is

22   directed but whether there is evidence upon which the jury

23   could properly find a verdict for that party.

24   Now, Section 284 permits the Court to award, in

25   its discretion, enhanced damages to a patent plaintiff upon

1   the finding of infringement. "A finding of willfulness is a

2   prerequisite to awarding enhanced damages." Enhanced

3   damages are "generally reserved for egregious cases of

4   culpable behavior." "Examples of that egregious behavior

5   include behavior such as willful, wanton, malicious, bad

6   faith, deliberate, consciously wrongful, flagrant or,

7   indeed, characteristic of a pirate." That is from *Ansell*

8   *Healthcare v Reckitt* case, which is 15-CV-915-RJA. And can

9   be found at 2018 Westlaw cite 620968 at page 6, which quotes

10   *Halo*, the Supreme Court decision. And.

11   "Under *Halo* -- this is the quote from *Halo.*

12   This is the quote from the case that says: "Under *Halo,*

13   therefore, before the Court can consider whether to award

14   enhanced damages, the fact-finder must first determine that

15   the defendant's behavior was subjectively willful under the

16   preponderance of the evidence standard. Subject willfulness

17   is found when the risk of infringement was either known or

18   so obvious that it should have been known to the accused

19   infringer."

20   In its opening statement, IBM promised to the

21   jury, it would meet its burden of establishing willful

22   infringement that it must do in its case-in-chief by saying

23   the following:

24   If it was cheap and it was easy to design-around

25   these patents and all of this could have been avoided, the

1   executives of Groupon said that to themselves, you know

2   what? It's cheap and it's easy, but if we're not going to

3   do it, damn the torpedoes, let's charge ahead. Well, that

4   is willful infringement.

5   Again, counsel's definition of wilful has no

6   legal support whatsoever.

7   But IBM, having concluded its case-in-chief, did

8   not provide any evidence to support its counsel's bold

9   proclamation. The only evidence IBM submitted to the jury

10   bearing any relevance to the issue of willfulness is in

11   interrogatory response that is read to the jury in which

12   Groupon stated that it became aware of the patents-in-suit

13   via pre-suit "communications with IBM." That is the extent

14   of the evidence that was put in front of the jury in the

15   IBM's case-in-chief.

16   But "the burden to prove willful infringement

17   includes more than just the mere knowledge of the patent.

18   That is a well-known fact, and it is all over the case law

19   including in the *Evonik* that I just mentioned. "Willfulness

20   must involve knowledge of the patent and of infringement."

21   IBM offered no evidence that Groupon had knowledge of any

22   purported infringement in its case-in-chief. And IBM

23   offered no evidence that Groupon acted with the requisite

24   subjective willfulness, i.e., that its behavior was

25   "willful, wanton, malicious, bad faith, deliberate,

1   consciously wrong, flagrant or ... characteristic of a

2   pirate" in its case-in-chief. And the definition of that,

3   that I just read is directly from the Supreme Court *Halo*

4   decision.

5   IBM did not elicit any testimony in support of

6   its willfulness claim as part of its case-in-chief. IBM has

7   provided no legally sufficient evidentiary basis for a

8   reasonable jury to find in its favor. Therefore, Groupon is

9   entitled to judgment as a matter of law.

10   Now, there is a Federal Circuit opinion in

11   *Norian v Stryker* that is very instructive. And it's at 363

12   F3d, and the pages relevant pages are 1332 through 33. So

13   what happened there is defendant Stryker, just as Groupon

14   here did in this case, stipulated to pre-suit knowledge of

15   the patents. So that was not disputed at trial by the

16   plaintiff Norian. Norian, like IBM here, offered no

17   evidence in support of its willfulness claims as part of its

18   case-in-chief. After Norian concluded its case-in-chief,

19   Stryker moved for judgment of as a matter of law on no

20   willfulness. The Court resolved that motion right there

21   before the defendant's case started, and the Court held that

22   the "initial burden is on patentee to present evidence of

23   willful infringement and must be done in a prima facie case

24   of willful infringement."

25   And the Federal Circuit affirmed the Rule 50

 1   motion holding that under these circumstances, removal of

 2   the question from the jury under Rule 50 was not an error.

 3   Now, to the extent that the Rule 50(a) motion

 4   will be deferred, the prejudice to Groupon for eliciting

 5   testimony on cross-examination that will go to prove willful

 6   infringement is improper for multiple reasons.

 7   I have already described how IBM is planning to

 8   handle its cross-examination and when allowing IBM to

 9   question Groupon witnesses on alleged willfulness. But IBM

10   offered absolutely no evidence in its case-in-chief with why

11   it would violate the sort of the rigid rule that the

12   cross-examination cannot be beyond the direct.

13   Second, under the Third Circuit law, evidence

14   which belongs in its case-in-chief must be first introduced

15   in this case -- must be introduced in this case-in-chief and

16   cannot be introduced for the first time in the rebuttal, and

17   such presentation can be rejected because otherwise it would

18   prejudice the jury and confuse the jury and prejudice the

19   defendant. And that is again in the *Emerick* case they

20   mentioned at page 22 there. Evidence of willfulness clearly

21   belongs, and there cannot be any dispute, evidence of

22   willfulness belongs in IBM's case-in-chief and not as put

23   forth, and allowing IBM now to prove that claim through

24   cross-examination of our witness and through rebuttal is

25   improper in its orderly presentation of proof.

 1   And, third, just permitting IBM to do that would

 2   completely confuse the jury. They will have no ability to

 3   be able to distinguish of what was proper proof and what was

 4   not. It will muddy the lines for them. It will be highly

 5   prejudicial to Groupon. And the goal here, right?, very

 6   clear from the opening. If IBM counsel thinks if I paint

 7   Groupon as a bad guy through cross-examination, then the

 8   jury will find willfulness for me. And I will do that by

 9   cross-examining every fact witness about you still didn't

10   license us. You didn't change the systems. Everybody else

11   licensed us and you didn't. And because you didn't change

12   the system and it was easy and cheap to do it, you willfully

13   infringe.

14   That is highly prejudicial. It will just paint

15   Groupon in a bad light. There is no way to recover from it.

16   And it is improper, especially here when they did not put

17   any evidence whatsoever in their case-in-chief.

18   So I ask that the Court grant our motion of

19   judgment as a matter of law of no willfulness and do not

20   allow IBM's counsel to elicit testimony going to the

21   willfulness through the cross-examination of our witnesses.

22   THE COURT: Okay. We'll hear IBM's response.

23   MR. DESMARAIS: Thank you, Your Honor. John

24   Desmarais for IBM.

25   We did put in evidence sufficient to sustain the

1   Rule 50 standard on willfulness, Your Honor.

2   First, we put in evidence that IBM put Groupon

3   on notice of the two Filepp patents in 2011. That IMB put

4   Groupon on notice of the Iyengar patent on 2012. And that

5   IBM put Groupon on notice of the Hinton patent in 2014.

6   We put in evidence from our expert about

7   historically what the Groupon technology was, and he brought

8   it back, from today back through that entire period and

9   showed that Groupon made no relevant changes to their

10   website through the entire period following notice.

11   We also put in evidence that Groupon did not

12   take a license while others similarly situated with similar

13   websites did. We put in evidence that Groupon has no patent

14   licensing policies whatsoever as a matter of corporate

15   governance.

16   And the standard that counsel cites from *Halo*

17   about being a pirate, et cetera, if you read *Halo*, in fact

18   she said it in her comments about *Halo*, that language is

19   tethered to the Supreme Court talking about the Court

20   enhancing damages.

21   I don't have *Halo* in front of me, but the quote

22   goes something like: Traditionally in our cases that have

23   enhanced damages, we look for conduct like copying and

24   piracy. That entire section of *Halo* is dedicated to when

25   a Court should enhance, and by how much they should enhance,

1   not to the question of, the fact question of willfulness or

2   not willfulness.

3   Willfulness and enhancement are two separate

4   things. The jury finds willfulness and the Court enhances.

5   *Halo* was talking about enhancing with that language, not

6   whether there is yes or no on the fact question of

7   willfulness. That issue is decided on a matter of reckless

8   disregard. And the evidence we put in clearly meets a

9   standard of reckless disregard.

10   Thank you, Your Honor.

11   THE COURT: Mr. Shamilov.

12   MS. SHAMILOV: Your Honor, the only evidence

13   in the record is when Groupon became aware of the patents.

14   Counsel right now said there was evidence that put Groupon

15   on notice. To the extent this was designed to show that the

16   legal notice, right?, requires I told you about the patents

17   and I told you that you infringe, there is no evidence that

18   was put in front of the jury that IBM told us that we

19   infringe.

20   Furthermore, evidence that goes that Groupon

21   system infringes, which that is what the expert did, the

22   expert said, yes, Groupon system infringes these claims and

23   it infringed through the entire period. I compared all

24   these versions. That goes to proving and showing

25   infringement. The mere fact of infringement is not willful.

 1   It has to be more than that to prove willfulness. He cannot

 2   get up and say I put in my case-in-chief, you know,

 3   testimony about how you flipped. Therefore, I put enough

 4   for the jury to find that you're willful.

 5   There is absolutely no evidence they put in

 6   their case-in-chief that Groupon knew that it infringed and

 7   disregarded that knowledge, that it had no evidence or no

 8   possibly reasonable reason to think that it did not infringe

 9   and that these patents are invalid.

10   We got up and say we use World Wide Web. We do

11   not use these patents. We have defenses in this lawsuit,

12   right? They never got up and said they knew Groupon

13   infringed. They decided to disregard it. They knew they

14   had no reasonable basis to say they did not infringe. And

15   they had no reasonable basis to say that the patents were

16   invalid. And so, therefore, they're not just infringing but

17   their infringement is willfulness.

18   It is not enough, the case law is very clear,

19   it is not enough to say they knew of the patent, and it is

20   not enough to say you infringed. You've got to go beyond

21   that to show why that infringement was reckless. Why that

22   infringement was willful. You need facts for that. There

23   is not a single fact that was just read by counsel that they

24   presented that can go to that.

25   THE COURT: In evaluating whether or not the

1   jury could reasonably find that there was a risk of

2   infringement that was so obvious that it was known or

3   should have been known, can I consider the testimony about

4   infringement, for instance, from the plaintiff's expert?

5   MS. SHAMILOV: No, you cannot. The testimony

6   about infringement goes to infringement. To go -- you

7   cannot -- that is not evidence that the jury can --

8   THE COURT: But I have to decide whether a

9   reasonable juror, taking everything they have heard so far,

10   or through the end of the case-of-chief, in the light most

11   favorable to IBM, could reasonably conclude that there was a

12   risk of infringement so obvious that Groupon even knew or

13   should have known it. In making that assessment, why would

14   I have to take out of my mind and presumably out of the

15   jurors' mind the opinion they heard from a qualified expert

16   about infringement?

17   MS. SHAMILOV: The standard is not -- the

18   standard, what they said *Halo* holds that counsel reads, the

19   quote that I'm reading about what willfulness means, that

20   it really must be characteristic of a pirate action, that is

21   the sufficient evidence to prove willfulness, there was

22   nothing like that put in front of the jury. And if you read

23   *Halo*, that quote is not just about enhancing damages. It is

24   about what type of conduct can allow the Court to consider

25   enhancing damages, i.e., what type of conduct constitutes

 1   willful infringement after which the Court may consider

 2   enhancing damages.

 3   *Halo* defined what constitutes willful

 4   infringement. And it is not just, oh, the risk was obvious.

 5   They have to elicit testimony about actions, that if you

 6   look at them, sound like reckless and actually kind of

 7   characteristic of a pirate. That it is wanton, malicious,

 8   reckless. There is none of that gets put in front of the

 9   jury that was sufficient for them to find, to make that

10   particular finding.

11   THE COURT: Is there anything else?

12   MS. SHAMILOV: No, Your Honor.

13   THE COURT: Okay. Well, as I think it was

14   Ms. Shamilov mentioned, I do usually defer on these motions

15   and I think I could defer her here. And if I were to defer

16   ruling on the motion, I don't agree with Groupon that that

17   would place some extra restriction on the plaintiff's

18   ability to fully and fairly cross-examine Groupon's

19   witnesses or to put on a fair rebuttal. That is, of course

20   IBM would be subject to the ordinary limitations on proper

21   cross-examination and the ordinary limitations on proper

22   rebuttal. But were I to defer on this willfulness motion, I

23   don't think that would pose some extra limitation on the

24   plaintiff as I understand Groupon to be arguing for. I just

25   don't agree with that. I think the burden is on the

1   defendant in this instance to prove to me that I should

2   grant the motion, and obviously if I grant the motion, that

3   will restrict what the plaintiff can do. But short of

4   granting it, I don't think there is any extra limitation on

5   plaintiff.

6   That said, I'm ready to rule on the motion and

7   I'm denying the motion. I do think that here, a reasonable

8   juror, taking all of the evidence in the light most

9   favorable to the plaintiff, which is the standard I have to

10   apply, could find all the elements necessary for a finding

11   of willful infringement.

12   First, they could find that the defendant had

13   knowledge of the patents. That, in fact, is undisputed.

14   Further, they could find that the defendant

15   acted in a willful, wanton, malicious, or bad faith manner

16   through evidence such as the fact that the defendant could

17   be found that the defendant had knowledge of the patents for

18   up to seven years and made no relevant changes to its

19   product, the accused product, to how the Groupon website and

20   the mobile apps functioned.

21   I think that a reasonable juror, again under

22   the appropriate standard, could find that the risk of

23   infringement was known to the defendant or was so obvious

24   that it should have been known to the defendant and that

25   therefore the defendant acted recklessly in not making any

1   relevant changes.

2   In this regard, I do think it is appropriate for

3   me to consider all of the evidence that came in up to the

4   time that the plaintiff rested their case. So specifically

5   I have considered, I think it is appropriate to consider the

6   expert testimony about infringement.

7   It seems to me that a reasonable juror, if they

8   accepted all of what the expert said, could make a finding

9   that would be a reasonable one, that this infringement is so

10   obvious that it was known or should have been known to the

11   defendant and that the defendant acted recklessly, et

12   cetera, in not making any changes.

13   Further, the jury could reasonably consider the

14   licenses, the licenses that others in this space took to

15   the patents-in-suit and could also consider the evidence

16   that the defendant at least at the relevant time did not

17   have a patent license policy.

18   So at least for all of those reasons under

19   the appropriate standards at this point in the case, I am

20   denying the motion.

21   To the extent there is an argument that

22   plaintiff's theory of willfulness is not a valid one under

23   the law, I will deal with that by instructing the jury what

24   the legal standard is on the law of willful infringement as

25   well as any other issue that remains in the case at the

1   time, and you will be giving me your updated proposed

2   instructions on Monday, and we'll have a chance to argue any

3   disputes over those instructions.

4   I do want to say I have applied the standard the

5   law requires me to apply which has absolutely nothing to do

6   with whether I think there was a risk of infringement that

7   was obvious, has absolutely nothing to do and no one should

8   draw any conclusions about whether I have heard nothing that

9   would make me at all inclined to enhance damages. Those are

10   not issues for today. Those are not issues for the jury.

11   If we get there, I'll have to deal with them. But what I

12   have had to decide is whether willfulness should go forward

13   in front of the jury, and under the appropriate standards, I

14   have concluded that it should.

15   Are there any questions about that ruling?

16   MS. SHAMILOV: No, Your Honor. I just want

17   to -- I know in the interest of time, we have other motions

18   but I can reserve bringing them up later, or if you want me,

19   I can do it now.

20   THE COURT: It's fine by me to reserve.

21   MS. SHAMILOV: Okay. Well, no. I mean --

22   THE COURT: You clearly understand I'm not going

23   to limit their presentation based on a motion you think you

24   might win. So if you are going to ask me to limit their

25   presentation?

 1   MS. SHAMILOV: I'm not. All I'm saying is I

 2   still need to read stuff in the record to preserve issues

 3   for appeal. I can do that now or later. I just want to

 4   make sure I'm not waiving.

 5   THE COURT: Right, you are not waiving.

 6   MS. SHAMILOV: Okay. I agree.

 7   THE COURT: My preference is we do it later.

 8   Again, I don't want you to misunderstand. I'm not going to

 9   limit the plaintiff unless, and until, you prevail on these

10   motions.

11   MS. SHAMILOV: I was not planning to ask for

12   that at all.

13   THE COURT: Okay. Any questions from IBM about

14   the ruling on the motion?

15   MR. DESMARAIS: No, Your Honor. We do have one

16   last issue of evidence, though, that my colleague Mr. Matty

17   would like to say.

18   THE COURT: That is something could come up in

19   the next three hours?

20   MR. MATTY: Yes. It was disclosed as an exhibit

21   with Ms. Pomeroy.

22   THE COURT: Okay. Go ahead.

23   MR. MATTY: Good morning, Brian Matty for IBM.

24   There is an exhibit that was disclosed for Ms. Pomeroy,

25   DX-671 that Groupon said they intend to use on her direct

 1 testimony today. Ms. Pomeroy is a paralegal from Fenwick &

 2 West. This exhibit is a declaration that she submitted, I

 3 think it was signed June 28th and they said that they intend

 4 to offer it into evidence today.

 5   We objected based on hearsay. It's being

 6 offered for the truth of the matter that's in the

 7 declaration. It all relates to the Amazon source code that

 8 we have heard about. We expect her to testify about how

 9 that code was produced and where it came from, from Fenwick

10 & West's record.

11   In addition to the hearsay issue with her

12 declaration itself, it attaches several exhibits that have

13 nested hearsay problems. Two of those are declarations from

14 2009 that were signed by an employee of Amazon, and so those

15 are also being offered as exhibits to this declaration.

16 They themselves have hearsay. So her declaration is

17 hearsay, the exhibits are nested hearsay and that was the

18 basis of our objection.

19   THE COURT: Okay.

20   MS. SHAMILOV: Your Honor, I just had a chance

21 to confer with my co-counsel. We will not be calling

22 Ms. Pomeroy.

23   THE COURT: You will not be calling Ms. Pomeroy?

24   MS. SHAMILOV: Will not be calling Ms. Pomeroy.

25   THE COURT: I take it that wins the objection;

1   right?

2   MR. MATTY: Yes, Your Honor.

3   THE COURT: Anything else that has to be dealt

4   with for anything that's going to happen in the next three

5   hours?

6   MR. MATTY: Not from IBM.

7   MR. HADDEN: No, Your Honor.

8   THE COURT: We'll take a short break and then

9   we'll bring the jury in.

10   (A brief recess was taken.)

11   THE COURT: The jury is definitely ready for us.

12   Anything before I bring them in? No issues?

13   MR. DESMARAIS: Before the cross starts, Your

14   Honor, I would like the just offer a couple of exhibits that

15   I used with the witness that I didn't offer.

16   THE COURT: Any objection to that?

17   MS. SHAMILOV: I don't know what the exhibit

18   numbers are.

19   MR. DESMARAIS: 60, 62, 63 and 992.

20   MS. SHAMILOV: No objection.

21   THE COURT: I'll call on Mr. Desmarais first and

22   then we will do the redirect.

23   MR. DESMARAIS: Also before the jury gets here,

24   on the time this morning, we are watching the time, I think

25   a lot of the objections were close calls and the --

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 1              THE COURT:  All that time is charge to IBM.

 2   That was the rule here, you raised all of those objections,

 3   so we don't keep track of who wins and loses.

 4              MR. DESMARAIS:  Not the Rule 50.

 5              THE COURT:  The Rule 50 you were charged for

 6   when you were speaking and I have charged the time from my

 7   ruling to the moving party, in this case Groupon.

 8              MR. DESMARAIS:  Thank you, Your Honor.

 9              (Jury entering the courtroom at 10:15 a.m.)

10              THE COURT:  Good morning, ladies and gentlemen

11   of the jury.  Welcome back.  Good morning, Mr. Carlisle.

12   We'll talk to you in just a minute.

13              First I want to update the ladies and gentlemen

14   of the jury.  I know that it's 10:15.  Thank you for being

15   here on time to start at 9 o'clock.  I did have some matters

16   to discuss with the parties and some other things I had to

17   attend to.  I want to assure you that we are on track.  I

18   know it often probably seems like we are not, but believe it

19   or not, things are going at just the pace I anticipated.

20   And as I told you in the instructions, this is a timed

21   trial, so I know how much time they all have left and I can

22   assure you we are all on track and the commitments I made to

23   you about my expectations when we will be done, I stand by

24   all of those.  So don't worry, please.

25              With that, again, good morning, Mr. Carlisle.  I
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 1   remind you that you remain under oath.

 2   ... JASON CARLISLE, having been previously

 3   sworn, was examined and testified further as follows ...

 4   THE COURT: Good morning to you, Mr. Desmarais.

 5   Pick up where we were.

 6   MR. DESMARAIS: Yes. Thank you, Your Honor. We

 7   finished the cross yesterday afternoon, but I would like the

 8   offer the exhibits I used which were Plaintiff's Exhibit 60,

 9   62, 63, and 992.

10   THE COURT: Ms. Shamilov, good morning. Any

11   objection?

12   MS. SHAMILOV: No objection, Your Honor.

13   THE COURT: Those are all admitted. And we'll

14   pass the witness and have the redirect.

15   (The above exhibits were admitted.)

16   MS. SHAMILOV: Thank you, Your Honor.

17   REDIRECT EXAMINATION

18   BY MS. SHAMILOV:

19   Q.   Good morning, Mr. Carlisle.

20   A.   Good morning.

21   Q.   Yesterday counsel for IBM was asking you to agree

22   that because Groupon is promoting product and services on

23   its website and mobile apps, then those are advertisements.

24   You wanted to explain to the jury, you disagreed and want to

25   explain to the jury why you were disagreeing, but you were

1   not given an opportunity to do that. What did you want to

2   explain for the jury?

3   A.   Yeah. I wanted to talk about the difference between

4   promotions and advertisements. It's similar to when you go

5   into a store and you see, you know, a certain dress on a

6   mannequin or a certain things at the end caps of an aisle or

7   certain things at checkout, those are not advertisements.

8   The store is promoting those products. In-house, that's

9   merchandizing. That's what Groupon does on its website when

10   it's merchandizing certain deals.

11   I work in the marketing department so I buy the

12   ads for Groupon on other sites, I go, you know, buy ads on

13   Facebook or on Google and I have worked in this field for

14   eighteen years, and have two patents on ads myself, so I

15   know the difference between ads, what is an add and what is

16   a merchandizing on site.

17   Q.   Counsel showed you an image yesterday on the screen

18   of the Groupon's web page where the deal and the trending

19   badge. Is the trending badge advertisement?

20   A.   No, it's not advertising. It's very similar, imagine

21   you were buying a bottle of Tide detergent, it said new and

22   improved on it. That's not an ad, that's something they put

23   on the packaging to get you to buy it. But it is promotion,

24   so there is a difference.

25   Q.   And when users click on deals on the web, for

1 example, on Groupon's website, are they taken to some other

2 website to view those deals?

3 A.   No, they stay within the Groupon store, Groupon

4 platform.

5 Q.   Do customers when they click on deals, can they put

6 them in the cart on Groupon's website and buy them?

7 A.   They buy them right there, that's the products and

8 services that we sell.

9 Q.   Counsel also showed you documents yesterday. Do you

10 recall that?

11 A.   Yes.

12 Q.   I'm going to -- I'm going to go through some of that

13 if you don't mind.

14 A.   Yes. Sure.

15 Q.   If I could ask you, I think in your binder there

16 should be a PX-0059.

17 A.   Yes.

18 Q.   Do you remember seeing this, the counsel showing you

19 this yesterday?

20 A.   Yes.

21 Q.   Now, there is a title. Let me see if I can do this

22 right. What does the title say?

23 A.   It says login/signup prompts.

24 Q.   What's the difference between login and signup?

25 A.   So to login is when you already have an account on a

1   particular website. Signing up means you're creating your

2   account for the first time.

3   Q.   And counsel showed you this one line from this

4   document that's highlighted, that he highlighted, right

5   there. Do you remember that?

6   A.   Yes.

7   Q.   And it says, "Logged in users have a higher purchase

8   rate compared to those who are not logged in (+2X)."

9   Do you remember that?

10   A.   Yes.

11   Q.   Does that mention signup at all?

12   A.   No, it does not.

13   Q.   Can you purchase anything on Groupon's website

14   without being logged in?

15   A.   No, you have to be logged in to buy something on

16   Groupon.

17   Q.   So all customers who make purses on Groupon's website

18   are logged in?

19   A.   That's correct, yes.

20   Q.   And they create -- they can create their account by

21   just using Groupon's account creation, Groupon's own account

22   creation button; is that right?

23   A.   That's right.

24   Q.   They do not have to go through Facebook, do they?

25   A.   They do not.

1   Q.   Do they have to go through Google, do they?

2   A.   Nope.

3   Q.   If I could ask you to turn to PX-0992 in your binder.

4   Are you there?

5   A.   Yes.

6   Q.   Do you remember counsel asking you questions about

7   this document?

8   A.   Yes.

9   Q.   How long roughly is that document, how many pages?

10   A.   About eighty pages.

11   Q.   And counsel asked you about this particular sentence

12   out of that eighty pages long document. Do you remember

13   that?

14   A.   Yes.

15   Q.   And it says, Google login; right?

16   A.   Yes.

17   Q.   What's the difference between Google login and Google

18   signup?

19   A.   So it's the same thing I was describing before where

20   to login is to access an account that you already have

21   versus to signup is to set up a new account.

22   Q.   I'm sorry.

23   A.   I'm sorry, go ahead.

24   Q.   So does this sentence that counsel highlighted

25   yesterday say anything about Google signup?

1   A.   No, it does not.

2   Q.   Now, counsel also talked about NOB lift of 22.4

3   overall. Do you remember that?

4   A.   Yes.

5   Q.   And counsel said that NOB is revenue. Do you

6   remember that?

7   A.   Yes.

8   Q.   Was he right?

9   A.   No, that's incorrect.

10 Q.   What is NOB?

11 A.   NOBs are net operational bookings, so that's the

12 amount that a customer pays for an item on Groupon. But our

13 revenue is actually, you have to subtract what we pay out to

14 the merchants. So, for example, if you buy something on

15 Groupon that's $10, but if we give $8 back to the merchant,

16 our revenue would be $2, so NOB would be $10, revenue would

17 be two.

18 Q.   And if I could ask you to turn to PX-0062 in your

19 binder. Are you there?

20 A.   Yes.

21 Q.   Do you remember counsel asking you questions about

22 that document?

23 A.   0062.

24 Q.   Yes.

25 A.   Sorry, I'm in the wrong one. Yes.

 1 | Q.   And again, how big is that document?

 2 | A.   This one also is about eighty pages.

 3 | Q.   Do you recall counsel pointing you to this one single

 4 | sentence from that eighty-page document yesterday?

 5 | A.   Yes.

 6 | Q.   And this document, this sentence again mentions NOB

 7 | right there. Do you see that?

 8 | A.   Yes.

 9 | Q.   And again, counsel said that NOB in that sentence

10 | stands for the revenue. Do you recall that?

11 | A.   Yes.

12 | Q.   Was he right?

13 | A.   No, it's the nobody.

14 | Q.   Was he wrong for the same reasons that you described

15 | for the jury already?

16 | A.   Yes.

17 | Q.   Just to remind them, what's NOB?

18 | A.   It's net operational bookings.

19 | Q.   And do you recall what counsel is discussing this

20 | sentence with you, he was talking about latency?

21 | A.   Yes.

22 | Q.   What is latency again, can you remind the jury?

23 | A.   Latency is -- it has to do with page feed and how

24 | fast a page loads. If you have high latency it is taking a

25 | long time to load.

1   Q.   Do you recall counsel asking you that this sentence

2   means that because Groupon's website and mobile applications

3   cache, that it means that Groupon has good latency on its

4   website, do you recall that?

5   A.   Yes.

6   Q.   Does this sentence say anything about cache?

7   A.   No, it does not.

8   Q.   How does Groupon improve latency on its website?

9   A.   There are lots of ways that we address high latency

10   where we will optimize the images that load the page to

11   reduce the size of those images so they load faster. You

12   can optimize the code. You can get better servers and have

13   them serve the web faster. There is lots of things that the

14   company does to improve latency.

15   Q.   Does computer speed matter?

16   A.   Yes.

17   Q.   Do Groupon engineers improve their systems?

18   A.   Yes, they're constantly working on them, the

19   technology.

20   Q.   I want to show you one of the screens I think you

21   used in your direct, and counsel asked you some questions

22   about. Do you recall seeing this screen yesterday that you

23   showed to the jury?

24   A.   Yes.

25   Q.   Do you remember counsel asking you questions about

    1   **this screen?**

    2   **A.   Yes.**

    3   **Q.   Do you remember IBM's counsel calling that thing**

    4   **culled out at the top, it's DDX-105, and the blow it up,**

    5   **feature, local, goods, getaways?**

    6   **A.   Yes.**

    7   **Q.   Do you remember counsel calling that a command bar?**

    8   **A.   Yes.**

    9   **Q.   What is a command bar?**

   10   **A.   They're just the links that are at the top of the**

   11   **page.   These are the links that are used on the Worldwide**

   12   **Web to connect websites within that.**

   13   **Q.   Is this a command bar on Groupon's website?**

   14   **A.   No, I would describe them as links.**

   15   **Q.   Are there other links on this web page?**

   16   **A.   Yes.   Basically anything you click on is a link, and**

   17   **there are links all over the web page.**

   18   **Q.   Are these links any different than the links of any**

   19   **other web page out there on the Worldwide Web?**

   20   **A.   No, any web page has similar links on it, all across**

   21   **the web.**

   22   **Q.   And does Groupon links on its website because that's**

   23   **part of the Worldwide Web?**

   24   **A.   Yes, that's just how the technology works, yes.**

   25   **Q.   How about storing information in cache, does Groupon**

1   use that as part of the Worldwide Web?

2   A.   Yes, Groupon does that just like all of their

3   websites do.

4   Q.   And how does Groupon implement the Google and

5   Facebook sign up?

6   A.   So we use the APIs which are -- it's kind of the

7   instructions that Google and Facebook give you to say here

8   is how to implement to signup or sign in on their page and

9   we are just follow the instructions.

10   Q.   Counsel asked you about Google, Facebook and Amazon

11   and asked whether they're competitors, and you said they

12   were competitive risks. What is a competitive risk?

13   A.   So a competitive risk is someone who is not in your

14   space right now working on delivering the same products, but

15   if they were to get in your space it would be a risk to your

16   business. It's a potential threat versus a competitor which

17   is someone that is actively doing the same thing that you're

18   doing.

19   Q.   So Google, Facebook and Amazon are not Groupon's

20   competitors?

21   A.   They are not competitors, they're more competitive

22   risk.

23   Q.   Why did Groupon not license IBM's patents?

24   A.   Because our technology is on the Worldwide Web and

25   Groupon did not infringe on those patents.

1   MS. SHAMILOV: Thank you.

2   MR. DESMARAIS: I would object and move to

3   strike that last answer, Your Honor. He hasn't even read

4   the patents. It's hearsay. Speculation.

5   THE COURT: Hold on. Do you object to striking

6   that last answer?

7   MS. SHAMILOV: I do. We're here because Groupon

8   does not believe it infringes.

9   THE COURT: I'm going to overrule the

10 objection.

11   Are you done with your examination.

12   MS. SHAMILOV: I'm done and I ask that

13 Mr. Carlisle be excused.

14   THE COURT: Any objection to that?

15   MR. DESMARAIS: No, Your Honor.

16   THE COURT: Ms. Shamilov, I can't see what books

17 are still over there, but if someone from Groupon can come

18 clear away the stand, that would be good.

19   MR. HADDEN: May I approach, Your Honor?

20   THE COURT: Yes.

21   And you may call your next witness.

22   MR. HADDEN: Groupon calls its next witness,

23 Phil Dunham, corporate representative and also senior

24 engineering manager. He will talk about how Groupon uses

25 the Worldwide Web and its own server technology.

 1   ... PHILLIP DUNHAM, the witness having been

 2   first duly sworn was examined as follows...

 3   THE COURT: Good morning, Mr. Dunham. Welcome

 4   to this side of the courtroom.

 5   THE WITNESS: Thank you.

 6   THE COURT: You may proceed when you're ready.

 7   MR. HADDEN: Thank you.

 8   DIRECT EXAMINATION

 9   BY MR. HADDEN:

10   Q.   Good morning, Mr. Dunham.

11   A.   Good morning.

12   Q.   Can you introduce yourself to the jury and tell them

13   a little bit about your background.

14   A.   My name is Phil Dunham. I'm senior engineering

15   manager at Groupon.

16   Q.   And where did you grow up, Mr. Dunham?

17   A.   I grew up in Aurora, Illinois which a suburb of

18   Chicago.

19   Q.   Will you tell us a little bit about your background

20   there?

21   A.   Well, my father was a philosophy professor at Aurora

22   University which is a half a block from the house where I

23   grew up. He's also a pastor at a local Baptist church. My

24   mother worked in the registers office at the university and

25   also played the organ at that same church.

1 Q.   Tell us a little bit about your education?

2 A.   I have a bachelors in philosophy from the University

3 of Chicago, a masters in philosophy from the University of

4 Washington, and a masters from computer science from the

5 University of Chicago.

6 Q.   How did you get from philosophy to computer science?

7 A.   Well, philosophy, it was everywhere in my home. My

8 home was an academic household, so learning was very much

9 encouraged, learning of all kinds. My father would take my

10 brother and I over to the computer lab that the university

11 had. We would program on the Apple II computers that they

12 had there. We also had a Commodore 64 computer, personal

13 computer that we used at home that I programmed on as well.

14 Q.   What did you do after you got your masters degree?

15 A.   After I got my masters degree I worked at startups in

16 Chicago in the programing. And in 2003 I joined Orbitz.

17 Q.   Orbitz being the travel website?

18 A.   That's correct.

19 Q.   What did you do at Orbitz?

20 A.   I started as a senior software engineer at Orbitz. I

21 was there for seven years. At the end of my time there, I

22 was director of technology.

23 Q.   What did you do after Orbitz?

24 A.   After Orbitz I worked at a few other companies

25 including some startups. And then in 2013 I joined Amazon

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1   in Seattle where I worked on their web services division

2   which is their cloud computing.

3   Q.   Why did you go from Orbitz ultimately to Amazon?

4   A.   Well, I joined Orbitz because that was sort of the

5   leading technology company in Chicago at the time. They had

6   the best engineers. I enjoyed working with smart people.

7   We were doing interesting things. Amazon was in my view an

8   even better technology company and it was an opportunity

9   that I felt I couldn't pass up.

10   Q.   How did you get from Amazon to Groupon?

11   A.   After spending a couple of years in Seattle I wanted

12   to come back to Chicago to be closer to my family. And

13   coming back to Chicago, Groupon had really supplanted Orbitz

14   as the premier technology company in Chicago, so that's

15   where I went to work.

16   Q.   How do you like working at Groupon?

17   A.   I love it. The work life balance is a little bit

18   better than at Amazon. There is lots of smart engineers

19   there. We're doing really interesting things. It's a

20   really good place for an engineer to work. You're

21   encouraged to launch the latest cutting edge technology and

22   use it to solve problems. And I like Groupon's mission is

23   connecting consumers with multiple businesses.

24   Q.   And what do you do now as senior engineer and manager

25   at Groupon?

1   A.   I manage three engineering teams in the Consumer Web

2   Platform Group which is part of a larger Consumer Platform

3   Group.

4   Q.   When you talk about the Consumer Platform Group, what

5   are consumer platforms at Groupon?

6   A.   So the Consumer Platform Group, that is the group,

7   engineering group that works on platforms that customers can

8   use to interact at Groupon. So that includes our websites

9   which are available on desktop browsers and it's also

10   includes the teams that work on mobile apps.

11   Q.   That is what we're seeing on the screen here, just an

12   image from the website; is that right?

13   A.   That's correct.

14   Q.   And these are the mobile apps?

15   A.   Images from our mobile apps, that's right.

16   Q.   And you talked about the consumer platform team. Is

17   there another platform team at Groupon?

18   A.   There is a few other engineering teams at Groupon.

19   There is merchant services team. So here you see on the

20   right, this is web pages that our merchant partners use to

21   interact with us instead of deals that we can sell on our

22   platform. That is one of the other major engineering

23   groups.

24   There is also the platform services team which

25   is, handles a lot of the backend services that the consumer

 1   and merchant services team leverage.

 2   Q.   Now, this is a diagram we've seen a few times. What

 3   is this diagram from?

 4   A.   So this is from some internal Groupon documentation.

 5   Q.   And what is the purpose? What is generally depicted

 6   here?

 7   A.   So this shows Groupon's service oriented

 8   architecture. And this is demonstrates how a web page from

 9   Groupon is composed and served to a user who is requesting

10   it.

11   Q.   So let's just kinds of walk through this at a high

12   level and then we'll go into some more detail.

13   So this cartoon figure, what is he representing?

14   A.   That represents a user or customer of Groupon.

15   Q.   And there is this arrow with, it looks like an URL in

16   it. What does that represent?

17   A.   So that represents, in this case, this user is making

18   a request for Groupon's home page, the address for Groupon's

19   home page is simply ... Groupon.com.

20   Q.   And this box, Grout, Grouting Service in the middle,

21   what does that do?

22   A.   So this is part of Groupon's platform. It looks at

23   incoming web requests and looks at the requests and decides

24   which applications of which computers, which one of our

25   programs will handle that request, and it will route that

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1   request to the appropriate application.

2   Q.   Okay. And then there is this box, Homepage ITA.

3   What does ITA stand for?

4   A.   IFA stand for Interaction Tier Application.

5   Q.   And we've heard the word "application" a lot in

6   various contexts in this case. When you are talking about

7   Interaction Tier Application, what is an application in that

8   context?

9   A.   So in this context, when we say "application," it's

10 just a program that runs on one of Groupon's servers.

11 Q.   And then leaving the Homepage ITA, there are these

12 various arrows. What do they represent?

13 A.   So this represents requests that the Homepage ITA is

14 making to some backend services. In order to put together a

15 web page that the user requests, an ITA will have to make

16 several requests of its own to different backend services to

17 get pieces of data that it can use to compose the web page

18 and return that to the user.

19 Q.   Okay. When you talk about backend services, what is

20 that exactly?

21 A.   So Groupon's platform is a service oriented

22 architecture where each program takes care of one task or is

23 responsible for one area. So you might have a user service

24 that is just there to provide information about users. User

25 name, user account. You might have a deal service that is

1   there to just return information about deals, or Geo service

2   or Geo location service that is used just to return

3   information about where the user is.

4   Q.   And what is the benefit to Groupon of breaking their

5   programs up into these services that have specific jobs?

6   A.   It makes things earlier to manage if one program only

7   does one thing. It's easier to reason about and have the

8   user manage that program and that data.

9   Q.   And the bottom service here is the layout service.

10   What does the layout service do at Groupon?

11   A.   So the layout service is used by all the web

12   applications, all the ITAs to make sure that Groupon's web

13   pages all look the same. Almost every web page on Groupon

14   is served by a different ITA. The home page might be served

15   by a Homepage ITA. A deal page would be served by a

16   Dealpage ITA. All of those will request from the layout

17   service basically the header and footer and some other,

18   other code like common JavaScript or style sheets to make

19   sure that every page of it, Groupon has the same header,

20   has the same footer, and looks and feels and behaves in a

21   similar manner.

22   Q.   Now, we have kind of expanded that diagram to show a

23   little more detail. So let's kind of walk through in this

24   expanded form what happens at Groupon when it receives a

25   request from the user?

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 1   So we have our cartoon guy there, and we have

 2   that box that says HTTP request. What does that show?

 3   A.   So the HTTP request, that is a request using the

 4   Hypertext Transfer Protocol from the customers web browser,

 5   so Groupon's website, the server at Groupon's website. So

 6   that is a request for a web page from Groupon.

 7   Q.   Okay. And you mentioned Hypertext Transfer Protocol.

 8   That's the Tim Berners-Lee invention we heard about earlier

 9   in the case?

10   A.   That, yes, that is how every web page is transferred

11   across the World Wide Web.

12   Q.   And we showed getting into this Grout box here. What

13   happens there? And where is that Grout box again?

14   A.   So that Grout box, that is part of Groupon's system.

15   So that lives in Groupon's datacenter. It runs on Groupon's

16   server.

17   Q.   Okay. And what is the Grout box going to do with

18   this request?

19   A.   So the Grout box is going to look at the request and

20   it's beginning to figure out what kind of page that the user

21   is requesting and looks through the path, which is the part

22   after Groupon.com, to look to see, you know, what

23   application, which ITA should I route this request, which

24   ITA can service this request. So --

25   Q.   So -- I'm sorry. Go ahead.

 1   A.   So in this case, you highlighted deals. The

 2   beginning of the path is deals. That tells the Grout

 3   service, well, I need to send this request to the Dealpage

 4   ITA because this request is for a deals page.

 5   Q.   And just to refresh us on a deal page. So this would

 6   be a request when the users like on Local and takes a

 7   particular item to look at? Is that the type of request

 8   this is?

 9   A.   Yes.

10   Q.   Okay. Or Goods, if they pick on an item they want to

11   see more of, this is the request that will be sent?

12   A.   If the user clicks out link that they expect to take

13   them to a page that wants more detail about a deal, that is,

14   this is the type of request they would use.

15   Q.   And there is some information in the top here. What

16   is this information?

17   A.   So that specifies the specific deal that the customer

18   is requesting more information about.

19   Q.   Okay. So here it is talking about an orthopedic pet

20   bed. So this is a request for a deal that is a pet bed; is

21   that right?

22   A.   Yes.

23   Q.   And is there a name for this information up here that

24   is in the URL?

25   A.   That is a permalink.

1   Q.   Okay. So what happens when the Grout gets this

2   request with this permalink?

3   A.   So Grout will look at the first part of the path, the

4   deals, and it will send that request to the Dealpage ITA.

5   Q.   Okay. And, again, refresh us. The Dealpage ITA is

6   the server program at Groupon?

7   A.   Yes.

8   Q.   And what does the Dealpage ITA do when it gets the

9   request from Grout?

10   A.   So in order to serve this request, it has to make

11   furthers requests of its own to backend services to get the

12   view detail information it needs to produce an HTML panel to

13   send back to the user.

14   Q.   So can you just kind of explain what the output

15   would be from the Dealpage ITA? What is its job in this?

16   A.   It's job is to produce an HTML document which

17   represents, which will be a web page to send back to the

18   user's browser.

19   Q.   And you mentioned it sends requests to these backend

20   services. Can you explain how those requests relate to the

21   requests it received?

22   A.   So they're not the same as the requests that the

23   Dealpage ITA receives. They're separate new requests that

24   the Dealpage ITA makes to get specific pieces of information

25   in order to put those, that information into the HTML

 1   document, the web page that it will return to the user.

 2   Q.   And can you give us some examples of what these

 3   requests will be for in sort of filling out a deal page?

 4   A.   So it might request specific information about that

 5   deal from a deals service or an inventory service. It will

 6   make a request of the layout service to get the pieces, the

 7   top and bottom of the page. It might call the user service

 8   if it needs to put, display the user's name, those sorts of

 9   things.

10   Q.   And what happens to that original request that came

11   from the browser once it gets to the Dealpage ITA?

12   A.   So it's handled by the Dealpage ITA, so the buck

13   stops at the Dealpage ITA for the user's request.

14   Q.   Is that request from the user sent to any of those

15   backend services?

16   A.   No.

17   Q.   Okay.

18   A.   Those are brand new requests.

19   Q.   And does the information in that request that we saw

20   that identifies the pet bed or the deal user is looking for,

21   did that go to the layout service?

22   A.   No.

23   Q.   Why not?

24   A.   The layout service doesn't need to know what deal

25   you are looking at in order to give you the header and the

1   footer. It's going to give the Dealpage ITA almost the same

2   header and footer for every request.

3   Q.   Now, what does the Dealpage ITA do after it --

4   (Screen flickers.) What happened there?

5   So what did the backend services do after we get

6   the request from the Dealpage ITA?

7   A.   Well, they may have to make further requests that

8   would be brand new requests to other backend services or

9   they may pull data from some data store or database.

10   Whatever they need to do to put together the information to

11   return back to the deal page.

12   Q.   And once the deal page gets that information, what

13   does it do?

14   A.   So once the Dealpage ITA gets that information, it

15   now has all the data it needs to put together a full HTML

16   document that will represent the web page.

17   Q.   Now, what does this show?

18   A.   So this is a mustache template which is, represents

19   some code that has sort of slots, variables, places that

20   could be filled in with data, specific data that can be used

21   to produce a portion of an HTML document.

22   Q.   And who fills in the pieces in the mustache template?

23   A.   So that would be the Dealpage ITA.

24   Q.   Now, what do these curly brackets, are they on this

25   mustache template?

1   A.   So this is where the mustache word, name comes from.

2   So these curly braces identify a spot that has a variable

3   that needs, this is sort of an open slot that needs to be

4   filled in with specific data.

5   Q.   Okay. So if I understand right, the Dealpage ITA

6   would have this mustache template and get information to

7   fill in the open spots from those backend services?

8   A.   That's right. So this mustache template is part

9   of the Dealpage ITA. And it uses it for -- in this case,

10   it uses it for deals that have multiple options. So any

11   deal that has multiple options, the Dealpage ITA would use

12   this template and use data that it received from a backend

13   service about a specific deal and fill in some of these

14   placeholders with information about that specific deal.

15   Q.   Okay. We have blown out one of the placeholders here.

16   What does this show?

17   A.   So this is the variable for a buy URL.

18   So this is just the name of the variable, and

19   this is where a URL, where we would put a URL that we would

20   receive from a backend service that is supplied, the link to

21   go to to purchase it.

22   Q.   So this is the link that would be underneath

23   effectively the buy button on the detail page of the deal?

24   A.   That's right.

25   Q.   Okay. And this particular mustache template that has

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1   the buy button, where does that mustache template come from?

2   A.   So this particular mustache template lives in the

3   Dealpage ITA, part of the code based on the Dealpage ITA.

4   Q.   And how do you know that?

5   A.   Well, I can see that from the path up there. You

6   see sort of SC/ -- for source code -- deal/deal/modules. So

7   the first part tells me that this is from the code base, the

8   code repository for the Dealpage ITA.

9   Q.   And does this mustache template come from the layout

10   service?

11   A.   No, it does not.

12   Q.   Does the layout service provide any mustache

13   templates that have buy buttons?

14   A.   No, it does not.

15   Q.   And how does this placeholder for the buy URL replace

16   with the real link?

17   A.   So, this real link would come back from deal service

18   or an inventory service, some other backend service that

19   would come to -- that data would get to the Dealpage ITA,

20   and the Dealpage ITA would process the mustache template and

21   just replace this placeholder variable with the buy URL from

22   the backend service.

23   Q.   Remind us again, who puts this URL into the right

24   place in the mustache template?

25   A.   The Dealpage ITA does that.

 1   Q.   And does the Dealpage ITA look for links in this

 2   template before it does that?

 3   A.   So in order to put in, populate the data in these

 4   variables, it just looks for the curly braces. It doesn't

 5   look for anything else.

 6   Q.   And does the Dealpage ITA change or modify this link

 7   at any point?

 8   A.   No, it does not.

 9   Q.   Now, we have seen some slides of some of your

10   testimony where you were asked: "And how can you identify

11   that lines 7 and 8 correspond to hyperlink?" Do you see

12   that? And you refer to the href letters.

13   A.   Yes.

14   Q.   What were you testifying about here?

15   A.   So I was asked how do I identify which lines in this

16   file correspond to a hyperlink?

17   So I, as a human being reading this document,

18   that is how I would identify. That is how I would find

19   something that represents a link.

20   Q.   Okay. But how does the Dealpage ITA identify or does

21   it identify links in this document?

22   A.   The Dealpage ITA just looks for those curly braces

23   and looks for a data that matches that variable and does a

24   substitution. It doesn't look for specific links.

25   Q.   So is there any code in the Dealpage ITA that looks

1   for these hrefs?

2   A.   No.

3   Q.   Now, I think we saw this diagram, too. And it shows

4   a mustache template coming back. Do you see that?

5   A.   Yes.

6   Q.   So I think you testified that mustache template with

7   the buy buttons already are in this guy in the middle. It's

8   the Dealpage ITA; right?

9   A.   Correct.

10   Q.   So why does Groupon have a document that shows a

11   mustache template coming from the layout service the other

12   direction to the Dealpage and Homepage ITA?

13   A.   Well, the layout service doesn't provide the mustache

14   templates to the Homepage IFA or the Dealpage ITA but the

15   Dealpage ITA would combine those with templates, its own

16   templates to produce the full HTML document.

17   Q.   And, again, do any of these templates from the layout

18   service include a buy button?

19   A.   No.

20   Q.   Does that layout service ever get the information

21   about what the product is that the user is requesting?

22   A.   No.

23   Q.   This is a kind of fuzzy, hard to read document so we

24   won't spend much time on it.

25   How does this document -- and what is this

1   document actually?

2   A.   So this is from, it's an internal Groupon

3   documentation. This is actually something that we use in a

4   document that we give to new engineers that we hired to get

5   them up to speed on Groupon's system and our software

6   architecture and how it is organized.

7   Q.   So what do these, all these boxes represent

8   generally?

9   A.   So these are all services. Groupon's architecture

10 not only has service oriented architecture but it's a tiered

11 architecture. So there are, all of these services or

12 programs are grouped into layers that sort of perform

13 similar functions.

14 Q.   So just to orient the jury a little bit. The other

15 diagram we had had sort of the user over here and the

16 request going I guess left to right?

17 A.   That's right.

18 Q.   If we're going to try to put this as a similar

19 representation, where would the user's request be coming

20 into this?

21 A.   That would be coming from the top to the bottom. So

22 at the top here, you see the user experience layer, that

23 includes the user's browser. Here is the highlight of this.

24   So we have blown up the top two layers there.

25 On the top is the user experience layer and above that line,

1   those are programs that are in the control of the user.

2   They're the user's web browser or some program running on

3   the user's phone.

4   Right below that is what we will call the front

5   end layer, and this is where the ITAs or Interaction Tier

6   Applications, that's where they are.

7   Q.   So the line in the middle here, that is the line

8   between Groupon and the outside world?

9   A.   That's right. Below that black line, the front end

10   layer and below is represents programs running within

11   Groupon's servers.

12   Q.   Okay. Let me see if we can -- okay. And then we

13   have another layer underneath the front end layer that says

14   data aggregation layer. What does that do?

15   A.   So this is sort of the front door for the web

16   application, the ITA to talk to the various backend

17   services. So this data aggregation layer may perform some

18   functions like security and other functions and also may

19   like take data from the various backend services and combine

20   them to get back to the frontend tier.

21   Q.   And again the frontend tier here, that is why the

22   Dealpage ITA would be?

23   A.   That's right.

24   Q.   And below that, there is some other layers, it looks

25   like. What does the core layer do?

 1   A.   So the core layer has various functions required for

 2   managing users across the website. You can see, it's a

 3   little hard to read, but you can see some examples here:

 4   The user service, the Geo service which provides the

 5   location information, and the shopping cart service, manages

 6   the items that are in the user's shopping carts and keeps

 7   track of that.

 8   Q.   What does the supply layer do?

 9   A.   So the supply layer provides information about the

10   different deals that Groupon offers. And the deals are in

11   different categories, as I think we discussed. There are

12   local deals, goods deals, getaways which are travel deals,

13   and each one of these different types of deals are handled

14   by a specific backend service that handles that type of deal.

15   Q.   Is this the page that would be returned to the user

16   if we went through the process we did with the initial

17   request for the dog bed?

18   A.   Yes, that's right.

19   Q.   And does that page contain div tags.

20   A.   It contains dozen of div tags just like almost every

21   page on the Worldwide Web.

22   Q.   Does that page contain a global container div tag?

23   A.   Every page on Groupon contains, has a global

24   container div tag on it.

25   Q.   Did the global container div tag have any effect on

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 1   how that page looks on the user's screen?

 2   A.   On its own, no.

 3   Q.   And does the global container div tag have any effect

 4   on where that page is presented the user screen?

 5   A.   No, it does not.

 6   Q.   Does the global container div tag have any effect on

 7   the area on the screen in which that's presented?

 8   A.   No, it does not.

 9   Q.   Does the global container div tag have any effect on

10   the size of the page on the user screen?

11   A.   No, it does not.

12   Q.   And I think you said by itself it doesn't affect web

13   page.   What causes a div tag to have an effect on a web

14   page?

15   A.   A div tag on its own is just a marker around a

16   certain portion of the HTML document. On its own it doesn't

17   format or do anything to it. In order to have an effect,

18   some other code has to run that refers to that div tag and

19   that code would apply some towards styling or formatting to

20   the portion of the HTML document within that div tag. That

21   other code would be in a style sheet or possibly some Java

22   script code that's running on the client's browser.

23   Q.   If the global container doesn't have any effect on

24   how this page looks to a user on a browser, why does Groupon

25   put global container tags in all their web pages?

1   A.   **We do it to handle one specific situation.**

2   Q.   **What is that situation?**

3   A.   **We want users to visit our website, we want to**

4   **encourage them to sign up to our emails and we keep track of**

5   **-- we keep track through cookies, which I think we'll talk**

6   **about in a bit, whether or not that user has seen a prompt**

7   **to sign up to our email service.**

8   **If they haven't seen that prompt yet, we want to**

9   **display that to them and in order to display that, we'll put**

10   **the big prompt in the middle of their -- of the page, and we**

11   **want to dim the rest of the page. So that's actually what**

12   **we use the global div container to do. We apply in this**

13   **situation, we apply a style to that div tag, which dims**

14   **everything within that div tag.**

15   Q.   **So this is what the user would see on their browser**

16   **when that program runs in reference to the div tag?**

17   A.   **That's correct.**

18   Q.   **Just to be clear, does the div tag cause this signup**

19   **circle to show?**

20   A.   **No. It just dims the page behind it.**

21   Q.   **And is there code that refers to the div tag, to**

22   **global container div tag that causes that dimming?**

23   A.   **Yes.**

24   Q.   **Is that this code here?**

25   A.   **That's right, yes.**

 1   Q.   So the only purpose for Groupon to put these global

 2   containers in all their pages is to be able to dim it like

 3   this in certain situations?

 4   A.   That's right.

 5   Q.   Now, after we've decided to buy our fine dog a fine

 6   bed, we get to this page; correct?

 7   A.   Yes.

 8   Q.   And there is this button, proceed to checkout. Is

 9   there a URL or link associated with that button?

10   A.   Yes, there is.

11   Q.   Is this it?

12   A.   Yes.

13   Q.   Is there anything in that link that identifies that

14   fine dog bed we're buying?

15   A.   No, it just is a link to the checkout process.

16   Q.   So how does Groupon track and know that I'm buying

17   that dog bed and not something else?

18   A.   We use cookies to do that.

19   Q.   So can you explain how Groupon uses cookies to track

20   what users are buying?

21   A.   Sure. So whenever a browser makes a request to a

22   website, the website can add something to their response.

23   Here we see a request they made to Groupon's website. The

24   website can send a cookie to the response. And what this

25   does is it brings the cookies to the user's browser.

Dunham - direct

1   What is a cookie? A cookie is just a little

2   piece of information that gets stored in the user's browser.

3   It's just, it has the domain of the website that sent the

4   cookie, and, you know, the name of the -- the information

5   and then the actual information.

6   So in this situation, I think the name is

7   session ID and we have just a number that's attached to

8   that. So whenever that browser makes another request to

9   that same website, it will send back the cookies along with

10 the HTTP request.

11 Q.   How do Groupon servers then use that cookie to know

12 that it's me buying this particular dog bed?

13 A.   So Groupon uses a few different cookies to track

14 users. We use a cookie, we send a cookie to track a user's

15 browser, so anyone using that browser that will send that

16 cookie and we'll know that that's the same browser. If a

17 customer has ever logged in, then we set a customer ID

18 cookie so we know when that browser sends a request, it will

19 send back the customer ID for that cookie. We'll know this

20 is that customer. This is an example of that here I believe

21 where we -- in this example we get back a session ID that

22 has a specific number, we can match that number to a

23 specific customer, and that's how we can track this

24 particular customer has a dog bed in their shopping cart.

25 Q.   And just to be clear, the Groupon cookies are a

 1   little more complicated than this, I take it?

 2   A.   That's correct.

 3   Q.   This is just conceptionally how it works?

 4   A.   That's right.

 5   Q.   Now, what happens if a user disables their cookies?

 6   A.   We use cookies to track whether customers are logged

 7   on. And you have to be logged on to make a purchase on

 8   Groupon. So customers, any user of a browser can disable

 9   cookies for one or more websites. If we do that, we won't

10   be able to keep track of who the customer is or what they

11   have in their cart. In fact, in a lot of situations you

12   will get an error page similar to this one.

13   Q.   If a user disabled their cookies and they go to

14   Groupon and try to buy something, they'll see a page like

15   this?

16   A.   That's right.

17   Q.   Now, this is back to the detail page on the dog bed.

18   And there is a lot of text here. Does this text ever get

19   cached by user's browsers?

20   A.   No. Whenever we send an HTML document, a web page

21   back to a user's browser, we indicate that the page itself

22   should not be cached, so none of the actual text on the HTML

23   page is ever cached.

24   Q.   Why does Groupon instruct not to cache their HTML?

25   A.   When we generate HTML, when we generate web pages

1   with it, we do it dynamically, we want to present relevant

2   up-to-date information to all of our customers, all of our

3   pages, that's why we direct browsers not to cache the HTML.

4   Q.   Are the global div tags and the other div tags in the

5   HTML part of the information that's not cached?

6   A.   They're part of the HTML, so they would not be

7   cached.

8   Q.   Some of these images I just picked, the dog, is that

9   something a user could cache if they enable caching?

10   A.   When we send back a response with an image, a cache

11   control header to indicate to the browser whether or not

12   they could cache it. And we would indicate foremost images,

13   we would indicate that those can be cached by the browser.

14   Q.   Why does Groupon set the cache control headers on

15   images to allow browsers to cache them?

16   A.   That's an industry best practice that's followed by

17   almost every website on the internet.

18   Q.   When you say industry best practice, can you

19   elaborate a little more on that?

20   A.   Using the HTTP protocols and there are certain best

21   practices for improving speed and efficiency on the web that

22   every website uses.

23   Q.   That's something that's sort of encouraged by the web

24   community?

25   A.   That's right.

 1   Q.   We talked primarily so far about website. We're back

 2   to our fuzzy diagram. Are there components of this that are

 3   also used by the mobile application?

 4   A.   Yes. All the back-end services that the website uses

 5   are also used by the mobile apps. The mobile apps won't

 6   talk to the interactions here which is where the websites

 7   live, they'll go to directly to the data aggregation layer

 8   to get information.

 9   Q.   Once we're past the data aggregation layer, the rest

10   of these services act similarly on the mobile apps?

11   A.   That's correct.

12   Q.   This is just a screen shot from the mobile app. And

13   it looks like you can scroll forever.

14   A.   This is the feature on our mobile apps that we call

15   infinite scroll.

16   Q.   So you can scroll forever?

17   A.   Yes.

18   Q.   And does Groupon set a predetermined number of deals

19   to send to mobile app?

20   A.   As long as the customer keeps scrolling, the mobile

21   app will request more deals and the group will send more

22   deals to the app.

23   Q.   There is no predetermined number of deals?

24   A.   There is not.

25   Q.   If a user is on Groupon's website and is browsing,

1   does Groupon set a predetermined number of images that that

2   user's browser could cache?

3   A.   No.

4   MR. HADDEN: No further questions.   Thank you,

5   Mr. Dunham.

6   THE COURT: Okay.   Cross-examination.

7   CROSS-EXAMINATION

8   BY MR. OUSSAYEF:

9   Q.   Good morning, Mr. Dunham.

10   A.   Good morning.

11   Q.   You talked a lot about cookies in your direct

12   examination; is that right?

13   A.   Yes.

14   Q.   And you did not talk about the pledge ID parameter,

15   did you?

16   A.   I did not.

17   Q.   And the pledge ID is a variable that specifies a

18   specific option for a deal; correct?

19   A.   That's correct.

20   Q.   And you would agree that if Groupon's pledge IDs

21   suddenly stopped work, Groupon's website would not function

22   properly; correct?

23   A.   It's difficult to imagine that scenario.   I suppose

24   so, yes.

25   Q.   I'm sure you would agree that the pledge ID performs

1   an important function because it specifies which option for

2   a particular deal that the user is interested in purchasing;

3   correct?

4   A.   It specifies which option for a deal to be returned

5   for a specific web request, yes.

6   Q.   Right. The pledge ID keeps track of what the user

7   has selected for a particular deal; correct?

8   A.   If the user selects a specific option, the pledge ID

9   will be part of the request that's sent to Groupon.

10   Q.   Well, let me just ask the question again. The pledge

11   ID keeps track of what the user has selected for a

12   particular deal; correct?

13   A.   It's used by the user to select a particular deal, a

14   particular option for a deal.

15   Q.   Right. Exactly.

16   And you were in the courtroom when Dr. Schmidt

17   explained his expert opinion that Groupon uses pledge ID to

18   maintain state information; correct?

19   A.   I was here, yes.

20   Q.   And despite all your testimony about cookies, you

21   would agree that pledge ID is not tracked using cookies?

22   A.   I agree.

23   Q.   Now, in your presentation, you showed cookies going

24   back and forth between a website and a browser with a

25   desktop version of the website and Groupon servers; is that

1   right?

2   A.   That's right.

3   Q.   You weren't showing the mobile applications use of

4   cookies; right?

5   A.   That's correct.

6   Q.   You didn't have any testimony about the mobile

7   applications using cookies in your direct?

8   A.   That's correct.

9   Q.   Let me show you an animation that you were shown on

10   your direct here. So let's play this animation. Now, you

11   showed Groupon scrolling through several deals here, the

12   user would be scrolling through several deals; is that

13   right?

14   A.   That's right.

15   Q.   How many screens did the user scroll through here?

16   A.   Well, I mean, it's the same screen that the user is

17   seeing. They're seeing multiple deals.

18   Q.   How many screens of display is the user seeing as the

19   user goes from one deal to the next?

20   A.   There is one screen on the phone. They're just

21   seeing multiple deals as you scroll up.

22   Q.   I'm not asking about the screen, I'm asking about how

23   many screens of display are scrolling up and down?

24   A.   I didn't count the animation. I don't know.

25   Q.   More than one?

 1   A.   More than one.

 2   Q.   More than one screen of display?

 3   A.   More than one screen full of deals.

 4   Q.   Right.

 5   Now, what is the size of the deals that are

 6   scrolling up and down that we just saw?

 7   A.   Size by what measure? I'm not sure I know.

 8   Q.   So you don't understand what I mean by size, but you

 9   still know that there is multiple pages of display scrolling

10   by; right?

11   A.   I don't know what the size is of that screen.

12   Q.   It's a little bit ambiguous, the question about size

13   without any context, isn't it?

14   A.   Yes.

15   Q.   Now, you talked a lot about the deals page, too;

16   right?

17   A.   Yes.

18   Q.   In fact, you're not the right person to talk about

19   the deals page, are you?

20   A.   Well, I know about the deal page, I work with the

21   deal page team. I don't manage the deals page team.

22   Q.   You don't know the details of the deals page;

23   correct?

24   A.   I worked with engineers on the deals page team and I

25   talk to them. I have not worked on the code myself.

Dunham - cross

 1   Q.   And it's fair to say that you do not know the details

 2   of the deals page; true?

 3   A.   There are details about the deals page that I do not

 4   know, that's true.

 5   Q.   In fact, you could say that you do not know the

 6   details of the deals page; right?

 7   A.   There are details on the -- about the deals page that

 8   I do not know, that's true.

 9   Q.   I'm saying it in a slightly different way and I just

10   want to make sure because we had a deposition here. You

11   don't know the details of the deals page; correct?

12   A.   That's correct.

13   Q.   And, in fact, the deals page is managed by another

14   team, not your team, right?

15   A.   That's correct.

16   Q.   It's managed by the deals team; right?

17   A.   Yes.

18   Q.   And the person who heads up the deal page at Groupon

19   is Varun Sood; right?

20   A.   He did, it's one of his -- he's been promoted since

21   he exclusively managed the deals team.

22   Q.   At time of your deposition he was manager of the

23   deals team?

24   A.   Yes.

25   Q.   And we saw his testimony yesterday; right?

1   A.   Yes.

2   Q.   And Groupon decided not to bring him to trial here;

3   right?

4   A.   Yes.

5   Q.   Now, let me show you Exhibit 5 from your deposition.

6   This is -- fair to say this is a picture of Groupon's

7   website?

8   A.   Yes, this is Groupon's home page at one time.

9   Q.   And for the record, I'll say that this is Trial

10   Exhibit PX-103. Now, Groupon delivers HTML which tells the

11   browser to render the page; right?

12   A.   Yes.

13   Q.   And it's fair to say Groupon decides what content is

14   served from www.Groupon.com?

15   A.   Yes.

16   Q.   Groupon decides what images the user sees when they

17   visit Groupon's website?

18   A.   Yes.

19   Q.   And Groupon sends several types of files to the user

20   browser to display the website; right?

21   A.   Yes.

22   Q.   In particular Groupon sends HTML files, Java script

23   files, image files, et cetera; right?

24   A.   Yes.

25   Q.   And Groupon's website is structured to allow the user

1   to move from one area of the website to another by clicking

2   on links in the header; right?

3   A.   Yes.

4   Q.   And the header just so we're all on the same page is

5   the top part here with the Groupon logo and the links for

6   local goods, getaways, et cetera?

7   A.   Yes.

8   Q.   Now, the user can click on, for example, the goods

9   link on the Groupon header to go to the goods part of

10   Groupon's website; right?

11   A.   Yes.

12   Q.   And goods, local, getaways, coupon, they all

13   correspond to Groupon channels; right?

14   A.   Yes. They're different types of inventory at

15   Groupon.

16   Q.   And goods, local, getaways, and coupons, each of

17   those are a discrete category of deals that Groupon offers;

18   right?

19   A.   Yes.

20   Q.   And the sequence of pages that the user goes through

21   to purchase goods or services are different for the

22   different channels. Fair?

23   A.   They can be.

24   Q.   In fact, they are; right?

25   A.   Yes.

 1   Q.   And that's because if you're going to the getaways

 2   part of the page, you're going to have different options

 3   you're going to have to pick like flights and that kind of

 4   thing?

 5   A.   That's right.

 6   Q.   And that would be different from the goods part?

 7   A.   That's right.

 8   Q.   And it's accurate to say that each channel has unique

 9   requirements; right?

10   A.   Yes.

11   Q.   Now, let's see. If we look at what we see here, I'm

12   going to show you a different part. Where you see things

13   like there is something here we can see called urgency

14   messaging; right? Let me zoom in a little bit. What we see

15   here sale ends 8/5, that's urgency messaging; right?

16   A.   Yes.

17   Q.   And Groupon has found that urgency messaging

18   stimulates or increases Groupon's revenue; is that right?

19   A.   I believe it does increase conversion, yes.

20   Q.   And conversion means people buying deals?

21   A.   Yes.

22   Q.   And that increases money for Groupon; right?

23   A.   I hope so.

24   Q.   What's that?

25   A.   I hope so.

 1   Q.   Okay. So let's look at the -- let's look at a

 2   different part of this page here. Do you see there is a

 3   Super Mega Sale ad there?

 4   A.   I wouldn't call it an ad, I would say banner, a Super

 5   Summer Mega Sale.

 6   Q.   Okay. Well, it's fair too say that Groupon says the

 7   cache control header for this Super Mega Sale image; right?

 8   A.   Yes.

 9   Q.   And this is trying to induce people to enjoy the

10   summer with up to 80 percent off; right?

11   A.   Yes.

12   Q.   Okay. And just to be clear, it's Groupon that sets

13   the cache control header for that; right?

14   A.   Yes.

15   Q.   Okay. And now, you would agree that the only factor

16   that determines whether the Super Mega Sale image here is

17   cached at the user device is the caching instructions set by

18   Groupon, true?

19   A.   Well, the browser -- the user has to enable cache on

20   their browser as well.

21   Q.   What I'm asking you, though, is you would agree that

22   the only factor that determines whether the Super Mega Sale

23   advertisement here is cached at the user's device is the

24   cache control header set by Groupon?

25   A.   Well, the user would have to have caching enabled on

1   their browser as well.

2   Q.   All right. Let's see your deposition at 68, 15

3   through 20.

4   "Question: What factors --

5   MR. OUSSAYEF: Go ahead.

6   "Question: What factors determine whether the

7   Super Mega Sale advertisement hereby is cached at the user's

8   device?

9   "Question: What factors determine whether the

10   Super Mega Sale advertisement here is cached at the user's

11   device?

12   MR. OUSSAYEF: That's okay. We can take a look.

13   "Question: What factors --

14   THE COURT: Can we stop this?

15   MR. OUSSAYEF: We can stop. We'll take a look

16   at the deposition transcript. That will be easier.

17   THE WITNESS: That's fine.

18   BY MR. OUSSAYEF:

19   Q.   Let's take a look here. You were asked: "What

20   factors determine whether the Super Mega Sale advertisement

21   here is cached at the user's device?" As we heard several

22   times.

23   And you responded: "What factors? I think the

24   caching instructions that are delivered in the headers in

25   the HTTP response."

 1   You were asked that question and you gave that

 2   answer; right?

 3   A.   Yes.

 4   Q.   And then you were asked: "Any other factors that

 5   you're aware of?

 6   And you said: "No." Right.

 7   A.   That's right.

 8   MR. HADDEN: Objection, Your Honor. He is no

 9   longer impeaching. He is just reading his deposition.

10   THE COURT: Overruled.

11   BY MR. OUSSAYEF:

12   Q.   And that's because the cache control header is an

13   instruction served with HTTP content that tells the browser

14   whether to cache content, right?

15   A.   Yes.

16   Q.   So let me see if we can pull up PX-120, which was

17   Exhibit 28 at your deposition.

18   So this is a document. I think we might have

19   seen this earlier today. Do you remember this document,

20   Latency Why Should We Care?

21   A.   I think it was yesterday, but yes.

22   Q.   Okay. And it was authored by Clive Beavis, is that

23   right?

24   A.   That's right.

25   Q.   And he is one of Groupon's engineering management

1   team, right?

2   A.   Yes.

3   Q.   Then let's go to the third paragraph from the bottom.

4   Mr. Beavis says there are plenty of studies

5   available that demonstrate a clear correlation between page

6   performance and RPV.   Right?

7   A.   That is what this document says.

8   Q.   And you would agree with that statement, wouldn't

9   you?

10 A.   There are studies available, yes.

11 Q.   And RPV.   That means revenue; right?   Revenue per

12 view?   Or revenue per visit?

13 A.   I believe it means revenue per visit.

14 Q.   Right.   But regardless what it means, it means that

15 latency has a negative impact on revenue; right?

16 A.   That's what that sentence says.

17 Q.   Right.   And you would agree that there is plenty of

18 studies that show that correlation; right?

19 A.   Groupon hasn't done any of those studies but those

20 studies exist.

21 Q.   Right.   Now, let's look at the bottom paragraph of

22 this.

23   I think we might have seen this yesterday, too.

24 It talks about a study that shows that slow page speed

25 resulted in even more significant customer impacts than

 1   immediate RPV: Perceived lack of quality, anger and

 2   frustration with the vendor. It's not just a missed sales

 3   opportunity, it is a negative consume impact we risk.

 4   That is what Clive Beavis is writing about;

 5   right?

 6   A.   That is what he wrote in this document, yes.

 7   Q.   And you would agree with that, true?

 8   A.   There are -- Groupon has not done any of those

 9   studies, so it hasn't been established at Groupon's website

10   or within Groupon, but there are studies that other

11   companies have done that show that, that I have seen.

12   Q.   The time it takes for the user to receive -- well,

13   let's take a look at page 2 of this document. And towards

14   the bottom, there is a metric called Time to First Byte.

15   Right?

16   A.   Yes.

17   Q.   And that is the time it takes for the user to receive

18   the first byte of data they're interested in; right?

19   A.   Yes.

20   Q.   And what Mr. Beavis is saying is that it's important

21   for the time to first byte to be low; right?

22   A.   Yes.

23   Q.   And you understand that when the user has the data

24   already accessible because the data has been cached, the

25   time to first byte is very low, in fact is approximately

1 zero; right?

2 A.   I don't think that is true in Groupon's case. The

3 time to first byte in Groupon's case would be the time to

4 the first byte of the HTML document which refers to anything

5 else, any other images. Some of those images may be cached

6 on the browser but they won't be displayed until the HTML

7 document itself has been downloaded to the user's browser.

8 So the time to first byte is really the relevant to the HTML

9 document itself.

10 Q.   Okay. Let's see what you say in your deposition.

11   Could you please play 173, 18 to 22.

12   "Question: And is it fair to say that for a

13 user that has the data already accessible in the user's

14 cache, the time to first byte is very low, approaching zero?

15   "Answer: Yes, I think that's fair."

16 Q.   You were asked that question, and you gave that

17 answer; right?

18 A.   Yes.

19 Q.   Okay. Groupon considers the performance of its

20 website to be very important; right?

21 A.   We do.

22 Q.   And in fact, performance is a mantra for Groupon;

23 right?

24 A.   We have latency goals that we try to hit, yes.

25 Q.   And one way to improve latency is at the user's

1   device, right?

2   A.   Yes.

3   Q.   Now, you talked a little bit about Groupon's service

4   oriented architecture; right?

5   A.   Yes.

6   Q.   And you would agree there might be multiple service

7   requests that are made in order to display just one HTML

8   page; right?

9   A.   Yes.

10   Q.   And what that means is when a user requests a Groupon

11   web page, there might be several subsidiary requests for

12   portion of that web page; right?

13   A.   Yes.

14   Q.   That is what a service oriented architecture means;

15   right?

16   A.   Yes.

17   Q.   Okay. Let me show you page 3. Now, this is another

18   page from Groupon's website; right?

19   A.   Yes.

20   Q.   And this page is generated by a template; right?

21   A.   Yes.

22   Q.   Or it's generated by multiple templates; right?

23   A.   Yes.

24   Q.   And, specifically, it's generated by mustache

25   templates; is that right?

 1   A.   Yes.

 2   Q.   And you would agree that a mustache template is a

 3   skeleton for an HTML document; right?

 4   A.   Yes.

 5   Q.   Let me show you one of these mustache templates.

 6   So this is a mustache template.   This isn't the

 7   one you showed us, but it is another mustache template that

 8   Groupon uses; right?

 9   A.   Yes.

10   Q.   This is the single option.html.mustache template;

11   right?

12   A.   Yes.

13   Q.   Now, what we see here in PX-1224 is responsible for

14   displaying the section of the web page that has the buy

15   button in it; right?

16   A.   For a single option deal, yes.

17   Q.   Right. So the buy button here?

18   A.   Yes.

19   Q.   Okay. Now, this document is one of the outputs from

20   Groupon's backend services that are combined with other

21   components to send a web page to the user; right?

22   A.   Well, this, this document is part of the deal page

23   application.

24   Q.   And it's part of what is output to display a page to

25   a user; right?

 1   A.   It's used to produce output to display to a user.

 2   Q.   Right. It is used to produce output that is sent to

 3   the user; right?

 4   A.   That's right.

 5   Q.   Okay. And this is responsible for creating the URL

 6   and the hyperlink associated with the buy button we were

 7   looking at before; right?

 8   A.   That is part of the output of this.

 9   Q.   Right. It does other things but it also does the buy

10   button URL; right?

11   A.   Yes.

12   Q.   Okay. And we can see that in lines 7 and 8 here;

13   right? Where it says href equals?

14   A.   Yes.

15   Q.   Okay. And there are no other -- so this is a

16   hyperlink, what we're seeing here; right?

17   A.   It will generate a hyperlink.

18   Q.   In fact, you can identify what is here as a hyperlink

19   by the href letters; right?

20   A.   So every hyperlink on the web has, is represented by

21   a tag that has an href attribute.

22   Q.   Right. So what I'm asking, though, you can recognize

23   what is on line 8 here as a hyperlink by the fact it has

24   href; right?

25   A.   I recognize that, yes.

Dunham - cross

1   Q.   And there are no other hyperlinks on this page other

2   than what is on line 8; right?

3   A.   Let me look through.

4   That's right.

5   Q.   That's right? Okay.

6   A.   I only see the one.

7   Q.   Okay. And the URL portion of this, it's towards the

8   end of the highlighting, is a placeholder that would be

9   filled in by Groupon servers; right?

10   A.   Yes.

11   Q.   Okay. And Groupon source code will fill in the

12   placeholder when it comes time using backend API services;

13   right?

14   A.   Backend API services to get the data to put into that

15   placeholder.

16   Q.   And then you put in the URL there; right?

17   A.   That is how the URL gets populated there.

18   Q.   Right. So the URL gets populated, instead of saying

19   href equals curly brace curly brace URL, it will say href

20   equals and then the actual URL; right?

21   A.   Yes, that would be the output.

22   Q.   And it would be modified to do that; right?

23   A.   Well, this, it would be produced. So the URL is not

24   modified. It's produced by a backend service and then put

25   in this placeholder to produce the HTML document.

1   Q.   Right. But what is on line 8 will be modified

2   because it's not just the URL there, it's href equals quote,

3   and then the URL there; right?

4   A.   I mean this document, this text won't be modified.

5   It will be used to produce a new HTML document.

6   Q.   Right. And that new HTML document will not say href

7   equals curly brace curly brace URL. Instead, it will be

8   modified, it will say href equals and the actual URL; right?

9   A.   Well, it will be produced. So there is nothing to

10   modify before it is produced, so it will produce a document

11   that has an href equals and then an actual URL.

12   Q.   And that is different than what we see here on line

13   8; right?

14   A.   So the document that is produced will be different

15   than this text.

16   Q.   Right. So you have a different document afterwards,

17   with a different --

18   A.   You have a new document.

19   Q.   Right. And it will have a different href, right? It

20   will have a different href value?

21   A.   It will have a href value that won't be a

22   placeholder. It will be filled in with data.

23   Q.   Right. So now if we look at this URL parameter, or

24   this URL -- sorry. Let me start over here.

25   What is filled in in this URL will include the

 1   **deal ID parameter, if necessary; right?**

 2   **A.   Yes.**

 3   **Q.   It will include the pledge ID parameter, if**

 4   **necessary; right?**

 5   **A.   Yes.**

 6   **Q.   Okay. And as we discussed before, the pledge ID**

 7   **parameter specifies a particular deal, a particular option**

 8   **for a deal; right?**

 9   **A.   Yes.**

10   **Q.   Let's talk a little bit about the login process for**

11   **Groupon. If the user tries to purchase a deal but they're**

12   **not logged in, that triggers a login process; right?**

13   **A.   Yes.**

14   **Q.   And Groupon designed its website so that users have**

15   **to be logged in to purchase deals; right?**

16   **A.   Yes.**

17   **Q.   Okay. That was Groupon's decision?**

18   **A.   Yes.**

19   **Q.   Okay. Groupon requires users to log in to purchase**

20   **deals because it needs to know certain information about**

21   **users in order to provide the service or item they're**

22   **purchasing; right?**

23   **A.   Yes.**

24   **Q.   And Groupon also requires users to be logged in to**

25   **access the My Profile and My Groupon page; right?**

Dunham - cross

1   A.   Yes.

2   Q.   And one of Groupon's goals is to lock down secure

3   areas of the site to avoid fraud and unintentional access;

4   right?

5   A.   Yes.

6   Q.   Now, you know that Groupon prompts the user to log in

7   with a dialog box?

8   A.   Yes.

9   Q.   When they're buying a deal, for example?

10   A.   Yes.

11   Q.   And it's fair to say that Groupon's use of Google and

12   Facebook credentials is a way of authenticating the user?

13   A.   Yes.

14   Q.   One of the steps that occurs when Groupon uses Google

15   credentials is that it receives a token from Google; right?

16   A.   I believe so.

17   Q.   Right. And if the token it receives from Google,

18   once it is decrypted, does not have the user information

19   that Groupon needs, then in that case, the Groupon user

20   service needs to make an API call to Google; right?

21   A.   I'm not 100 percent sure about that, but I don't have

22   any reason to disagree.

23   Q.   Right. In fact, that is what you said at your

24   deposition; right?

25   A.   Yes.

1   Q.   Okay. And Groupon determines whether the token has

2   the user information that Groupon needs by decrypting the

3   token using Google's public key; right?

4   A.   I don't know if that is in my deposition testimony,

5   but I can't speak to it right now.

6   Q.   Okay. But that is your memory of what happens;

7   right?

8   A.   That is my memory of my testimony, yes.

9   Q.   Okay. And just to be clear, before you testified at

10   your deposition, you went and investigated how Groupon uses

11   Google credentials to log in; right?

12   A.   I did talk to some people to learn more about it, yes.

13   Q.   Right. And you were Groupon's corporate

14   representative on the login process; right?

15   A.   I was Groupon's corporate representative for that

16   deposition, yes.

17   Q.   Right. Okay. Then after the deposition, you had the

18   opportunity to edit your transcript if you wanted to; right?

19   A.   I believe so.

20   Q.   And you took that opportunity; right?

21   A.   I don't believe I submitted any edits.

22   Q.   Why don't we turn to, I believe it's the second tab

23   in your binder.

24   A.   Okay.

25   Q.   Do you see this tab is called an errata sheet?

1   A.   Yes, I do.

2   Q.   And it says witness Phil Dunham?

3   A.   Yes.

4   Q.   Is that your signature at the bottom?

5   A.   Yes, it is.

6   Q.   So you did submit some edits to your deposition

7   transcript; right?

8   A.   Yes. Now I recall.

9   Q.   Okay. And you didn't submit any edits to what you

10   said about the login process or indeed anything else that

11   was substantive; right?

12   A.   No, these edits were misspellings of names.

13   Q.   Right. Nothing substantive; right?

14   A.   Yes.

15   Q.   Okay. Now, it's also true that when a user tries

16   to log in using -- on Groupon's website using Facebook

17   credentials that they get a token from Facebook; right?

18   A.   I believe so.

19   Q.   And that token cannot be used to identify the user;

20   right?

21   A.   I don't recall. I'm not -- I don't recall.

22   Q.   Okay. Let's play the deposition testimony from 28,

23   12 to 19.

24   "Question: So the token that Groupon receives

25   from Facebook does not have enough information to uniquely

1   identify the user; is that fair?

2   "Answer: It is not -- it cannot be used to

3   identify that user. It is used to provide access to query

4   Facebook for information about that user."

5   Q.   Were you asked that question and did you give that

6   answer?

7   A.   Yes.

8   Q.   Now, the way that Groupon request information from

9   Facebook is by using the token it gets from Facebook; right?

10   A.   I don't recall.

11   Q.   Let's look at your deposition from at 28:20 to 23:

12   "Question: And the way in which Groupon queries

13   Facebook for information about the user is by calling

14   Facebook's graph API using the token?

15   "Answer: That's correct."

16   You do know, don't you, sir, that Groupon uses

17   the email address that gets back from Facebook or Google to

18   see if the user already has an account at Groupon; right?

19   A.   I think so.

20   Q.   And the email address identifies the user to Groupon;

21   right?

22   A.   Yes.

23   Q.   That's how Groupon figures out if they have an

24   account already or not; right?

25   A.   Yes.

1   Q.   If the user doesn't already have an account, then

2   Groupon creates the account for them; right?

3   A.   During a sign up process.

4   Q.   Right. That's what I said. When the user doesn't

5   already have a user account; right?

6   A.   Yes.

7   Q.   Okay. Just making sure.

8   Now, we went into a little bit about this, but I

9   just want to make sure I understand. Users need to have a

10   registered account to purchase Groupon deals; right?

11   A.   Yes.

12   Q.   And you would agree that Groupon's single-sign-on

13   using Google credentials or Facebook credentials is way of

14   making it easier for users to creat a user account; right?

15   A.   You said single-sign-on?

16   Q.   Well, let me ask you this. You would agree that

17   Groupon's sign on using Google credentials or Facebook

18   credentials is a way for making it easier for uses to create

19   new user accounts; right?

20   A.   It makes it easier for users to log in to Groupon's

21   website.

22   Q.   And to create user accounts, too; right?

23   A.   If it's a sign up process.

24   Q.   Right. So you can use it to log in or you can use it

25   to create a new Groupon account; right?

1   A.   I don't recall. Perhaps.

2   Q.   It sounds right, doesn't it?

3   A.   I don't recall. I would defer to somebody who knows

4   more about it.

5   Q.   Let's play the deposition at 62, 3 through 10:

6   "Question: And you'd agree that the

7   single-sign-on using Google credentials or Facebook

8   credentials that Groupon has implemented on its website is a

9   way of making it easier for a user to create a user account,

10   among other things?

11   "Answer: It is a way to make it easier to

12   create a user account, yes."

13   Were you asked that question and did you give

14   that answer?

15   A.   Yes.

16   Q.   And just to be clear, you were Groupon's corporate

17   representative on how single-sign-on works; right?

18   A.   I was Groupon corporate representative for that

19   deposition.

20   Q.   So we talked a little bit about this timeline. We

21   asked Mr. --

22   MR. HADDEN: Objection. Outside the scope of

23   the direct.

24   THE COURT: Let me give the jury their break.

25   So no talking about the case during the break. We'll get

 1   you back in just a little bit.

 2   (Jury leaving the courtroom at 11:42 a.m.)

 3   THE COURT: I'm going to ask you where you're

 4   going with this. Do you want Mr. Dunham not here for that

 5   discussion?

 6   MR. OUSSAYEF: Yes, I would like to exclude him

 7   for this discussion.

 8   THE COURT: The rest of you can sit or leave as

 9   you wish. Mr. Dunham, I'll ask you to step outside. Thank

10   you.

11   MR. OUSSAYEF: Your Honor, Mr. Dunham is

12   Groupon's corporate representative. He's the one that

13   Groupon chose to bring to its counsel's table and to

14   represent it as the face of Groupon. I think it's fair to

15   ask him when Groupon first became aware of the patents, and

16   just -- so I think that's a fair question to ask him.

17   THE COURT: Even though it's undisputed?

18   MR. OUSSAYEF: Yes, because there -- my line of

19   questioning will go to, you know, whether there has been any

20   changes to Groupon's products.

21   THE COURT: All right. Mr. Hadden.

22   MR. HADDEN: I don't see any relevance. We have

23   a stipulation, we have already gone over the timeline with

24   another witness. I don't see why he gets to ask every

25   witness the same question when we a have a stipulation in

1   effect.

2   THE COURT: The stipulation goes to the

3   awareness.   Is there a stipulation that there has been no

4   changes in the time since the awareness?

5   MR. HADDEN: No, but their expert has analyzed

6   our site and has opined there has been no changes.

7   THE COURT: Well, they're trying to get it

8   admitted by your fact witness.

9   MS. SHAMILOV: May I address that, Your Honor?

10   THE COURT: Sure.

11   MS. SHAMILOV: I think there is nothing wrong

12   with him asking Mr. Dunham if there were any changes made to

13   the system.   That's within his direct examination.   What's

14   wrong is to put this timeline and say but Groupon was aware

15   of these patents then, then and then, that's outside the

16   scope.   And then say, and, even though you were aware, or

17   imply that, that you knew about these patent that you did

18   not change the system.   That is prejudicial and that's --

19   there is nothing wrong with asking whether the system was

20   changed, he can ask that.

21   MR. OUSSAYEF: I think the length of time when

22   there was no change is certainly a relevant issue and simply

23   asking it kind of in a vacuum doesn't get the same

24   information or context to something that's highly relevant.

25   THE COURT: All right.   Weighing the prejudice

 1   against the relevance and undisputed fact of the dates of

 2   the knowledge of the patents, we're not going to put up the

 3   timeline. You can orient him and say the jury has already

 4   heard, as he knows because he was here, that such and such

 5   was the dates of the knowledge. There have been no changes

 6   to the website since that time frame and that's about it.

 7   Understood?

 8   MR. OUSSAYEF: Yes. Thank you, Your Honor.

 9   MS. SHAMILOV: The only thing I ask in the line

10   of questioning, the language that counsel uses is the

11   language of the uncontested facts so he doesn't muddy the

12   waters, the uncontested facts they were specific, Groupon

13   was aware of the patents. I don't want the counsel to be

14   changing the language to imply that they did something

15   different.

16   MR. OUSSAYEF: There is already an interrogatory

17   response in evidence that says Groupon has been aware since

18   this date when it learned from communications from IBM,

19   that's the exact language I'm going to use. The

20   interrogatory response is already in evidence.

21   THE COURT: He will do his best to track the

22   language of the interrogatory.

23   Anything else before we take a short break?

24   MR. OUSSAYEF: No, Your Honor.

25   THE COURT: Let's take a short break.

1   (A brief recess was taken.)

2   THE COURT: Bring the jury back in.

3   (Jury entered the courtroom at 12:05 p.m.)

4   THE COURT: We are ready. Mr. Oussayef, you may

5   proceed.

6   BY MR. OUSSAYEF:

7   Q.   Mr. Dunham, Groupon first became aware of the '967

8   patent on November 1st, 2011 by communications with IBM;

9   right?

10   A.   I believe so.

11   Q.   And Groupon first became aware of the '849 patent in

12   2011 by communications with IBM, too; right?

13   A.   That's before I joined.

14   Q.   But that's what you understand; correct?

15   A.   That's my understanding.

16   Q.   And Groupon first became aware of the '601 patent in

17   2012 by communications with IBM, too; right?

18   A.   That's my understanding.

19   Q.   And Groupon first became aware of the '601 patent in

20   2014 by communications with IBM; right?

21   A.   I believe so.

22   Q.   And you first became aware of this patent lawsuit in

23   2016; right?

24   A.   Yes.

25   Q.   And at your deposition, you testified that Groupon

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 1    had never tried to design around the patents in this

 2    lawsuit; true?

 3    A.      I believe so.

 4             MR. OUSSAYEF:  I have no further questions, Your

 5    Honor.  I do wish to offer Exhibit 103, PX-103.

 6             MR. HADDEN:  Objection, Your Honor.

 7             THE COURT:  I'm sorry?

 8             MR. HADDEN:  Objection, Your Honor.

 9             THE COURT:  What's the objection?

10             MR. HADDEN:  It's handwritten notes.

11             MR. OUSSAYEF:  No, the unmarked version.

12             MR. HADDEN:  I have no problem with the unmarked

13    version.

14             THE COURT:  The unmarked version will be

15    admitted.

16             MR. OUSSAYEF:  I have marked the marked

17    version of 103 as Plaintiff's Demonstrative 1600, and then

18    marked the version of PX-1224 as Plaintiff's Demonstrative

19    PX-1601.

20             THE COURT:  That's noted but not admitted into

21    the record.

22             MR. OUSSAYEF:  Thank you, Your Honor.

23             THE COURT:  Any redirect?

24             MR. HADDEN:  Yes.

25             (Plaintiff's Exhibit 103 was admitted.)
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1   **REDIRECT EXAMINATION**

2   **BY MR. HADDEN:**

3   **Q.   Hello, again, Mr. Dunham.**

4   **Before we had the break, IBM's counsel asked you**

5   **some questions where he's talking about signing in and sign**

6   **up, and he seemed like he was somewhat interchanging them.**

7   **Just to be clear, what is signup at Groupon?**

8   **A.   Signup is the creation of an account.**

9   **Q.   Is that something that typically users do once?**

10   **A.   Yes.**

11   **Q.   And sign in, what is sign in at Groupon?**

12   **A.   Sign in is establishing a login session at Groupon,**

13   **communicating with Groupon's website that you are logging**

14   **into your account.**

15   **Q.   And signing in is what you have to do to make a**

16   **purchase; right?**

17   **A.   That's right.**

18   **Q.   And you can sign in to a Groupon account using**

19   **Facebook or Google; correct?**

20   **A.   Yes.**

21   **Q.   And do you have to have created that account using**

22   **Facebook and Google to sign in with it?**

23   **A.   No.**

24   **Q.   So you can sign in to an account any way you want**

25   **regardless of how the account was created; is that right?**

 1   A.   That's right.

 2   Q.   But you're not the expert at Groupon on signing in

 3   and signing up, are you?

 4   A.   No, I am not.

 5   Q.   Who would know more about that than you?

 6   A.   Jim Breen would know more about that than I.

 7   Q.   Is Jim Breen going to be testifying in this case?

 8   A.   Yes.

 9   Q.   Is Jim Breen the one you talked to to get information

10   from your deposition?

11   A.   He was.

12   Q.   Was Jim Breen later deposed by IBM?

13   A.   He was.

14   Q.   There was also some confusion I think between

15   multiple requests to come from a browser to render a page

16   and requests in a backend architecture. Do you remember

17   those questions?

18   A.   I remember them.

19   Q.   Can you just explain that a little bit? Could we get

20   up that image -- sorry.

21   Just start with you talked about time to first

22   bite depending on the HTML. Can you explain that?

23   A.   Yes. So when the user's browser request a web page,

24   the first thing they're requesting is the HTML document. So

25   that request goes to an ITA, the ITA before it returns any

1   part in the first bite of the HTML document it may have to

2   make some other requests to backend services in order to

3   produce that HTML document.

4   The HTML document is the first thing that will

5   be downloaded to the user's browser. Within that HTML

6   document there may be other links to images that would then

7   be downloaded once the first part of the HTML document is in

8   the user's browser.

9   Q.   And I think you testified earlier that the HTML

10   itself is not cached at the user?

11   A.   That's correct.

12   Q.   So if we take this picture as an example, what part

13   of this would be the first bite, or the time to first bite

14   would be dictated by what?

15   A.   The HTML document itself which includes all the text,

16   that wouldn't include any of the images. The browser

17   doesn't know what images it needs to download or display

18   until it gets the HTML document itself into the browser, and

19   then that HTML document will tell the browser I want to

20   display these images as part of this web page.

21   Q.   So that the initial latency is determined not by

22   whether the user is caching images, but by how fast you make

23   the HTML?

24   A.   How fast we get that HTML document to the user's

25   browser in the first place, yes.

1   Q.   Do engineers at Groupon try to figure out how to get

2   that HTML to the browser fast?

3   A.   Yes.

4   Q.   Do you spend a lot of time trying to do that?

5   A.   We spend a lot of time trying to do that.

6   Q.   Does that have anything to do with whether or not the

7   user has caching images?

8   A.   Caching images doesn't effect the time to first bite,

9   no.

10   Q.   And we have seen various documents that IBM has put

11   up to talk about how getting that time to first bite down

12   means that Groupon ultimately may make more sales. Have you

13   seen those documents?

14   A.   Yes.

15   Q.   All of those improvements in latency and time to

16   first bite and those documents, does that have anything to

17   do with users caching images?

18   A.   No.

19   Q.   And why not?

20   A.   We're -- our latency efforts are really focused on

21   the time to first bite getting the HTML to the users browser

22   more quickly. What we focus on to improve latency in

23   regards to images is making sure that the images are the

24   size of those files, or as small as possible so when they

25   are downloaded, they're downloaded quickly.

Dunham - redirect

1   Q.   Is it fair to say that whatever benefits there are to

2   latency, users caching images is something that is

3   ubiquitous across the web?

4   A.   Caching images is best practice for almost every

5   website on the web.

6   Q.   Has it been that best practice for a while?

7   A.   Yes.

8   Q.   With respect to browsing and whether or not Groupon

9   controls whether users cache images, you were asked some

10 questions and shown some testimony from your deposition.

11 Let me just put up some other testimony right below it. Do

12 you see that I think counsel for IBM put up this question,

13 he asked you what factors beyond the caching instructions

14 are delivered in the headers in the HTTP. He asked you

15 another question. He said, assuming the user does not

16 essentially clear the browser cache. So is it correct that

17 whatever caching headers you sent will only be effective if

18 the user is caching?

19 A.   That's correct.

20 Q.   And the user decides that; right?

21 A.   Yes.

22 Q.   There were some other questions about a pledge ID.

23 Do you recall those?

24 A.   Yes.

25 Q.   And IBM's counsel showed you this Mustache template.

 1   **Do you recall that?**

 2   **A.   Yes.**

 3   **Q.   Is there any difference in the way that Groupon**

 4   **processes this Mustache template than the one you and I**

 5   **walked through?**

 6   **A.   No.**

 7   **Q.   And is it also the case with this Mustache template**

 8   **that it is part of the deal page ITA?**

 9   **A.   Yes, it is.**

10   **Q.   And is it also true of this Mustache template that it**

11   **does not come from the layout service?**

12   **A.   That's true.**

13   **Q.   Is it, in fact, true that it does not come from any**

14   **backend service?**

15   **A.   That's correct.**

16   **Q.   And the URL that, or the place holder for URL here,**

17   **is that treated in the same way as the one you and I**

18   **discussed?**

19   **A.   Yes, it is.**

20   **Q.   Counsel for IBM played some testimony, or talked**

21   **about some testimony from your deposition where you said**

22   **that you didn't know the details of the deal page. Do you**

23   **recall that?**

24   **A.   Yes.**

25   **Q.   Have you ever managed the team for the deal page,**

1   deal page ITA?

2   A.   No, I have not.

3   Q.   Have you managed the team for the home team ITA?

4   A.   Yes, I have.

5   Q.   Do those operate in the same -- similar way as we saw

6   in your diagram?

7   A.   They use the same, similar technology, yes.

8   Q.   Do they use the same backend services?

9   A.   Yes, they do.

10   Q.   Do they use the same Mustache templates?

11   A.   Yes.

12   Q.   Not the same, but the same type of Mustache template?

13   A.   They use Mustache templates in the same way, yes.

14   Q.   Okay.   Thank you.

15   Going back to latency just for a minute, IBM's

16   counsel asked you some questions, showing you some documents

17   from other people talking about surveys and about the effect

18   of latency on web sales.   Do you recall that?

19   A.   Yes.

20   Q.   Do you have any opinions of your own about the effect

21   of latency on sales and revenue?

22   A.   Well, this is a disputed topic at Groupon.   There is

23   a balance between serving a very fast page and serving a

24   dynamic page that has relevant content customized to that

25   specific user.   So Groupon has never done any internal

1   studies that measure specific impact of like how much

2   revenue would be gained or lost by improving or by changing,

3   by the change in latency positive or negative. We don't

4   know -- we don't know for a fact that if the page improves X

5   number of seconds that we will make X much more money. We

6   haven't established that at Groupon.

7   Q.   Now, I'm sure we can all agree that if it takes ten

8   seconds to get a page, you probably would be losing

9   customers?

10   A.   I would agree with that.

11   Q.   And the balance you're talking about is if you're

12   going to show more interesting information, it may take

13   longer but that may be more beneficial at the end of the

14   day, is that what you're talking about?

15   A.   Yes.

16   Q.   Counsel for IMB put up this web page and drew this

17   circles and wrote some stuff. Now, these things in circles,

18   are these links?

19   A.   They are hyperlinks.

20   Q.   And these are links that will take you like all

21   hyperlinks do to other web pages?

22   A.   Like other links on that page.

23   Q.   So, for example, there are some links over on this

24   side. Will these also take you to different categories of

25   deals on Groupon?

1   A.   Yes, they will.

2   Q.   Okay. So is it any difference between these links

3   and these links in that regard?

4   A.   No.

5   Q.   Okay. And, in fact, aren't all these pictures links,

6   too?

7   A.   Yes, they are.

8   Q.   Okay. And this image that you focused on, isn't that

9   a link as well?

10   A.   Yes, it is.

11   Q.   Okay. Thank you. Has Groupon done anything to its

12   website or its backend services to improve them since you

13   have been at Groupon?

14   A.   Yes.

15   Q.   And I forgot again. When did you start at Groupon?

16   A.   I started on October of 2015.

17   Q.   So since 2015, you have been trying to improve the

18   website?

19   A.   Yes.

20   Q.   Why?

21   A.   To have a better experience for our customers.

22   Q.   Okay. Have you tried to change the website because

23   of IBM's patents?

24   A.   No.

25   Q.   And you have been here through the whole case,

1   haven't you, Mr. Dunham?

2   A.   Yes, I have.

3   Q.   Have you seen any evidence that would suggest to you

4   that Groupon uses IBM patents?

5   A.   No.

6   MR. HADDEN: Thank you.

7   THE COURT: Are you done?

8   MR. HADDEN: I'm done.

9   THE COURT: You may step down.

10   MR. HADDEN: May he step down or be released as

11   a witness?

12   THE COURT: Well, he is certainly stepping down.

13   Can he be released as a witness?

14   MR. DESMARAIS: He is the corporate

15   representative. He is staying here.

16   MR. HADDEN: Well, he can watch. But can he be --

17   MR. DESMARAIS: Well, I think if he stays here,

18   he is subject to possibly being recalled.

19   MR. HADDEN: Okay.

20   THE COURT: He is possibly being recalled. You

21   can step down.

22   MR. HADDEN: Okay.

23   THE COURT: You may call your next witness.

24   MR. HADDEN: Let me have just a second.

25   Groupon will call Jim Breen, a technical witness

Breen - direct

1   from Groupon who will explain single-sign-on systems at

2   Groupon, and how they use Facebook and Google's APIs.

3   ... JAMES P. BREEN, having been first duly

4   sworn, was examined and testified as follows ...

5   THE COURT: Welcome, Mr. Breen.

6   MR. HAACK: Good morning, Your Honor. May I

7   proceed?

8   THE COURT: Yes, good afternoon. You may

9   proceed.

10   MR. HAACK: Ladies and gentlemen of the jury, my

11   name is Phil Haack. I'm an attorney for Groupon, and I'll

12   be talking to you today with Mr. Breen.

13   DIRECT EXAMINATION

14   BY MR. HAACK:

15   Q.   Good afternoon, Mr. Breen. Could you please

16   introduce yourself to the jury?

17   A.   Sure. My name is Jim Breen. I'm a Senior

18   Engineering Manager at Groupon.

19   Q.   And how long have you been at Groupon?

20   A.   Almost seven years now.

21   Q.   Could you tell the jury just a little bit about your

22   background with computers?

23   A.   Sure. I grew up in the Chicago suburbs. This is

24   back before every kid has their own computer, and there was

25   even a computer in every classroom. And my grade school had

1   a computer lab with old Apple 2Es before they even made

2   MacIntoshes. And we used to get to go there a few days a

3   week sometimes to play games like Oregon Trail but also to

4   learn basic programming language and try to create our own

5   little programs. I tried to write my own game at one point.

6   Later on in high school, I had a motivational

7   teacher in a programming class I took there, Mr. Kramer.

8   And one day, we walked into the classroom at the beginning

9   of class, and Mr. Kramer had the curtains all closed in the

10   room. I didn't know why. And he said I've got a new

11   program to show you. And he hit "enter" on the computer and

12   it didn't do anything. He seemed a little frustrated and

13   said: I don't know why this isn't working. And he opened

14   the curtains and suddenly the computer came to life. And:

15   This is bright, too bright.

16   And what he had done is hook up a light sensor

17   to the computer, and that sensed the light coming from the

18   window and turned the computer on. And I thought that was

19   pretty neat. That was the first time I had ever seen any

20   kind of sensor sensing the environment with a computer.

21   That made an impression on me.

22   Q.   Thanks. And where did you get your education?

23   A.   So I went to college at the University of Notre Dame.

24   I became aware of the school growing up because my dad was a

25   fan of the football team, but I learned it was a good school

1   when I started looking at colleges.

2   I started with studying mathematics there and

3   found that math was, at that level was very abstract and

4   theoretical, too much so for my tastes, and I had friends

5   who were a year older than me in the computer engineering

6   program and I saw that they got to write these programs and

7   sort of do more hands-on work and that appealed to me more

8   than math so I switched to major in that.

9   Q.   And did you complete your degree?

10   A.   Yes. I have a Bachelor's of Science degree in

11   Computer engineering.

12   Q.   And can you tell me about your career leading up to

13   Groupon?

14   A.   Out of school, I got a job at a company called

15   TelLabs which s was a telecommunications equipment

16   manufacturer. I wrote embedded software for those systems.

17   In the late 90s, when the Internet became very

18   hot, I started working for a consulting firm whose clients

19   were mostly companies that needed websites to be built, and

20   that is where I first started working on web programming and

21   Internet development.

22   Unfortunately, in the dot com craze in the

23   2000s, most of our clients went out of business and so did

24   we, but I continued to work for different companies doing

25   different web and Internet web-related work.

1   I worked for a consulting company that was

2   acquired by Groupon in 2011 and that is how I started at

3   Groupon.

4   Q.   And what is your title at group?

5   A.   Senior Engineering Manager.

6   Q.   And what are your responsibilities as a Senior

7   Engineering Manager?

8   A.   I currently manage the financial engineering

9   development team which is the team at Groupon that is

10   responsible for building and maintaining systems that

11   automate Groupon's payments to its merchants.

12   Q.   Have you managed any other teams at Groupon?

13   A.   Yes. Prior to joining the financial engineering

14   development team a year ago, I managed the users team at

15   Groupon. And the users team builds and maintains systems

16   related to user accounts.

17   Q.   And how long were you on the users team?

18   A.   Almost six years.

19   Q.   And you mentioned user accounts. What do you mean

20   when you say that?

21   A.   You, any user can browse Groupon's site and deals

22   without being logged in, but to purchase you need to be

23   logged in, and user accounts are the core record in

24   Groupon's database that allows someone to log in and that

25   core record contains a user ID that Groupon generates with

 1   an e-mail address and a name.

 2   Q.   And how can a user create an account at Groupon?

 3   A.   There is a few different ways that the user can

 4   create an account on Groupon. One of the ways is via a

 5   sign-up link navigation. I think we might have some slides.

 6   Q.   Sure.

 7   A.   So at the top right, it might be hard to see, the red

 8   circle surrounds it. It says sign up. That link is right

 9   next to another link that says sign in, a little below it

10   and to the left. The user can click on sign in if they want

11   to create a new account at Groupon there. And when they do

12   that, that will take them to a different screen, different

13   web page.

14   Q.   Is that the web page?

15   A.   Yes. And on this web page, the user has the option

16   to specify whether or not they have an account or whether

17   they're a new customer and because they click the sign up

18   link and knew they didn't have an account, this page

19   defaults to show they're a new customer.

20   On this page, they can enter their name, e-mail

21   address and password, and click the sign up link. When they

22   do, that will create a new account for them and take them

23   back to the page they were on but have them be logged in.

24   Q.   And are there other ways a user can create an account

25   on Groupon?

1   A.   Yes. So we showed going from that top that link on

2   the top, top of the screen, and that link is on any page,

3   so they don't need to be on that page we showed. Any page,

4   they can, pretty much any page they can do that. But also

5   if they're viewing a specific deal and they like it and they

6   want decide to buy it, they click the buy link and they are

7   not logged in, they will have an option to create an account

8   through that flow as well.

9   And then for whether they clicked the link on

10   the top of the page or clicked the buy button and come to

11   this page, the net flow, they also have these options at the

12   bottom of the screen which are to sign up with Facebook or

13   to sign up with Google.

14   Q.   And what does it mean at Groupon that a user can sign

15   up with Facebook or sign up with Google?

16   A.   It means that instead of entering their name, e-mail

17   and password, as we showed before, the user can log in with

18   their Facebook credentials or their Google credentials. So

19   they can use their, their user name and password from

20   Facebook or the user name and password from Google in order

21   to be logged in and have an account.

22   Q.   And if they have that account, do they need to have a

23   separate Groupon password?

24   A.   No, they do not.

25   Q.   Can they have a separate Groupon password?

1   A.   Yes, they can.

2   Q.   So if I create an account here, let's say with

3   Facebook, and I come back in a week, do I have to use

4   Facebook to log in?

5   A.   No, you don't.

6   Q.   I can use Google to log in?

7   A.   Yes, you can use Google.

8   Q.   I can use Groupon to log in?

9   A.   Yes, you can as long as you added a password to the

10   account.

11   Q.   And how does Groupon know how to make this Facebook

12   and Google login process work?

13   A.   Facebook and Google both provide software and

14   instructions that detail the process and make those

15   available. And Groupon follows those instructions about how

16   to integrate with the Facebook login and Google login.

17   Q.   I see. And, Mr. Breen, if you look at your binder,

18   you will see you have a tab marked DX-0208.

19   A.   I don't know if I have a binder.

20   Q.   Yes. Well, that's my mistake.

21   THE COURT: That's somebody else's.

22   THE WITNESS: It doesn't have my name on it.

23   THE COURT: Right.

24   MR. HAACK: May I approach the witness, Your

25   Honor.

Breen - direct

1   THE COURT: You may approach.

2   (Binders passed forward.)

3   BY MR. HAACK:

4   Q.   Now I think you have a binder in front of you.

5   A.   I do.

6   Q.   I hope that binder has a tab labeled DX-0208?

7   A.   Yes.

8   Q.   And have you seen this document before, Mr. Breen?

9   A.   Yes.

10   Q.   And what is this document?

11   A.   This is a web page from Facebook's site for

12   developers that has documentation about how to use Facebook

13   login.

14   Q.   Is this the type of documentation that Google's

15   engineers -- sorry. Is this the type of documents that

16   Groupon's engineers use to build and maintain the Facebook

17   sign-in feature?

18   A.   Yes, it is.

19   MR. HAACK: Your Honor, I'd like to offer as

20   document evidence, Plaintiff's Exhibit 208.

21   MR. DESMARAIS: No objection.

22   THE COURT: It's admitted. I think it's

23   Defendant's Exhibit 208.

24   MR. HAACK: Thank you, Your Honor.

25   (DX-208 was admitted into evidence.)

1   **BY MR. HAACK:**

2   Q.   **Mr. Breen, you mentioned some documentation from**

3   **Facebook. Is that documentation publicly available?**

4   A.   **It is. Anybody, anybody can access it and it's**

5   **freely available.**

6   Q.   **Now, let's talk a little bit about how the Facebook**

7   **sign-in process works.**

8   **So when the user clicks this sign-up with**

9   **Facebook button that we can see here, what happens?**

10 A.   **So going back to when the page loads, when the page**

11 **first loads, the web browser downloads a piece of software**

12 **from Facebook called a Facebook SDK. SDK stands for**

13 **Software Development Kit, and it's just a piece of code**

14 **library written by Facebook that gets used in the user's**

15 **browser. That SDK is wired up to the sign-up with**

16 **Facebook's button, so when the user pushes the button,**

17 **Facebook's SDK runs, and it is going to send a request to**

18 **the --**

19 Q.   **Whoa. Sorry about that.**

20 A.   **-- sends a request to the Facebook server.**

21   **MR. HAACK: Brian, do you have another clicker?**

22   **There we go.**

23 **BY MR. HAACK:**

24 Q.   **Sorry about that, Mr. Breen. Technical difficulties.**

25 **Let's try that again.**

 1   That's fine. Okay. Go ahead, Mr. Breen.

 2   A.   When the user clicks the button, the Facebook SDK in

 3   the browser sends a request to the Facebook servers, and

 4   Facebook's servers send a response back to the browser.

 5   (Clickers exchanged.)

 6   BY MR. HAACK:

 7   Q.   So Facebook sends a response back to the browser?

 8   A.   Yes, Facebook sends a response back to the browser.

 9   With that response, the SDK pulls this popup page up, and

10   this popup page is a page from Facebook's website you can

11   see from the URL there. And it prompts the user to enter

12   their e-mail address and password in order to log into their

13   Facebook account.

14   And once they are done with that, they can press

15   login then. And then Facebook SDK in the browser will send

16   another request out to Facebook servers containing that

17   information. Facebook's servers will check the credentials

18   and send a response back saying, asking the user to grant

19   permissions for Facebook to share some of their user

20   information from their Facebook account with group.

21   Once the user granted that permission, they can

22   click continue, by clicking continue they grant that

23   permission and the request is sent from the browser back to

24   Facebook and Facebook then creates an access token and sends

25   it back to the browser in the Facebook SDK.

1   Q.   And pause right there for one second. We went

2   through a lot of things right there. So at the very

3   beginning of the process, when a user clicks on the signup

4   with the Facebook button, the web browser does not contact

5   Groupon system?

6   A.   No, it does not.

7   Q.   And why is that?

8   A.   Because the instruction provided by Facebook for how

9   to use, how to integrate with Facebook login specify this

10 process.

11 Q.   And you just mentioned an access token. What is an

12 access token?

13 A.   An access token is a credential that proves identity

14 of whoever has it or grants them some kind of permission or

15 privilege. On a computer, an access token is usually a

16 string of texts, like a lot of letters and numbers strung

17 together. And whichever, a system that has that token is

18 able to access data or perform operations on another system

19 that trust that token. You can think of it like a hotel key

20 card. Because I have a hotel key card, I can get access to

21 my hotel room, and like the hotel key card gives access to

22 the hotel room, when Groupon has a Facebook access token it

23 disables the Facebook access data on servers.

24 Q.   And the Facebook -- sorry, Groupon has a Facebook

25 access token for when I start this login process, can that

1   access token be used to get data about anybody?

2   A.   Only about the user who is signed in.

3   Q.   Mr. Breen, can you turn in your binder to exhibit

4   DX-0388?

5   A.   0388?

6   Q.   That's right.

7   A.   Okay.

8   Q.   Do you recognize this document?

9   A.   I do.

10   Q.   What is this document?

11   A.   This document is another page from the Facebook

12   developers site. And it's a piece of documentation about

13   access tokens and what they are.

14   Q.   And like the prior document, is this another document

15   that the engineers on the user team would have used to be

16   able to maintain the Facebook login feature?

17   A.   Yes.

18   MR. HAACK: Your Honor, I would like to submit

19   this as evidence.

20   MR. DESMARAIS: No objection.

21   THE COURT: What's the number?

22   MR. HAACK: DDX-038.

23   THE COURT: It's admitted.

24   (Exhibit DX-38 was admitted.)

25   BY MR. HAACK:

1 Q.   Mr. Breen, let's go back to the Facebook login here.

2 You received an access token from Facebook at the browser.

3 What happens after that?

4 A.   So the user browser will then send that access token

5 to Groupon servers. And on Groupon servers there is a piece

6 of software program called the user service which then takes

7 the access token and makes an API call to Facebook. An API

8 is a -- stands for application programmer interface, and you

9 can think of it like, it's like a program that runs on

10 Facebook servers that allows other systems to interact with

11 Facebook servers.

12   So the user service will make an API call to

13 Facebook servers, to the Facebook API on the Facebook

14 servers and it will pass that access token.

15   And Facebook will return a response, Facebook

16 will validate the access token first of all, and identify

17 which user is associated with that access token is only

18 associated with the user who went through the login process

19 and will return information back to the user service from

20 that Facebook account.

21 Q.   And what does Groupon do with the Facebook access

22 token? I'm sorry, what information does Facebook get back

23 after it sends the access token?

24 A.   Groupon gets back a Facebook user ID, email address

25 and name from the Facebook servers.

1   Q.   And why does Groupon call Facebook API with the

2   access token?

3   A.   Because that's what Facebook instructions specify to

4   do, so they do it.

5   Q.   And after Groupon has that information that came from

6   the Facebook user info response, what does the user service

7   do with it?

8   A.   User service will take the Facebook user ID and email

9   address that it got back and it will look to see if there is

10   an existing user account in Groupon's database for either of

11   the Facebook user ID or the email address. If it finds an

12   existing record it will log the user in as that, into that

13   account. And if it does not find an existing record, it

14   will create an account for that user using the name and

15   email address that came back.

16   Q.   So one of two things will happen, it will either log

17   the person in or create an account at that point?

18   A.   Yes.

19   Q.   And what information does Groupon have to have in

20   order to create an account?

21   A.   Groupon has to have a name and an email address.

22   Without those, we are not able to create an account in the

23   Groupon database.

24   Q.   And does Groupon need any other form of

25   identification to create an account like a driver's license

1   or Social Security number or credit card?

2   A.   No, we don't.

3   Q.   And in the flow we were just talking about, what

4   happens if the information that Groupon receives from

5   Facebook doesn't contain a name or doesn't contain an email?

6   A.   If it doesn't contain those, then it's not going to

7   be able to find an existing account in Groupon's database

8   and it's not going to be able to create a new one. In that

9   case it will return an error, the user will not be logged

10 in.

11 Q.   And the signup flow here that we just discussed for

12 Facebook on the website, is it different from the way it

13 works on Groupon's mobile applications?

14 A.   No. The way the flow works on the website and the

15 mobile apps is substantially the same. The interactions

16 with the Groupon and Facebook servers are the same. One

17 minor difference is that as I mentioned at the beginning,

18 when the web page mode downloads the SDK from the Facebook

19 servers, the way that mobile apps work, when you install

20 them it's everything packaged up, so the mobile app that

21 gets installed already has the Facebook SDK packaged in with

22 it, so that piece of software that's written by Facebook is

23 part of the app when it's installed on the mobile device.

24 It still handles all the interaction from the mobile device

25 to the Facebook servers and also is what it manages

1   displaying on the screens to the user to have prompt for

2   their Facebook credentials.

3   Q.   Mr. Breen, I believe earlier you said that the

4   Facebook SDK that runs in a user web browsers is just

5   downloaded from the web on page mode; right?

6   A.   Yes.

7   Q.   Where does the Facebook SDK for a mobile app come

8   from?

9   A.   It also comes -- it comes from Facebook. We're able

10   to download it, developers are able to download it from the

11   Facebook developer site in order to package it as part of

12   the mobile apps.

13   Q.   So we just discussed account creation with Facebook

14   on Google. Does Facebook encourage websites to use this

15   account creation and sign in technology?

16   A.   They do. They promote it on their developer site and

17   encourage -- they promote it and encourage companies to use

18   it. It's in their best interest to have more people making

19   use of Facebook. Many websites use Facebook login. Any

20   time you see a login with Facebook button similar to the

21   ones on Groupon's site, they're using Facebook login on that

22   website.

23   Q.   And Mr. Breen, what do we see on this slide?

24   A.   This is a web page from Facebook's developer site

25   talking about access tokens. It's just sort of summarizing

 1   that the quote here is summarizing that when the user goes

 2   through the Facebook login process and approves the request

 3   for permissions, that the app in this case, Groupon, is

 4   obtaining the access token that provides the temporary

 5   secure access to Facebook APIs. As we discussed the user

 6   service on Groupon servers has temporary access to Facebook

 7   APIs.

 8   Q.   And what is this page, Mr. Breen?

 9   A.   This is another page from Facebook's developer site

10   that's part of their developer documentation. They have a

11   lot of documentation to make sure developers have an easy

12   time integrating the Facebook. This particular page is

13   talking about how to make API calls to the Facebook API.

14   Q.   And API calls, are those the calls that you're

15   talking about that go from the user service to Facebook?

16   A.   Yes.

17   Q.   What about this one, Mr. Breen?

18   A.   This page is an excerpt from the one we looked at

19   earlier, and it's describing here that Facebook login,

20   Facebook is saying that Facebook login is allowing people to

21   create accounts in the third-party apps, so making it more

22   convenient for them to log in. It's saying you can create

23   an account.

24   Q.   So Facebook's instructions tell Google that it's okay

25   to make accounts using the Facebook --

1   A.   Yes.

2   Q.   Has Groupon, Groupon engineers ever interacted with

3   Facebook about that feature?

4   A.   We have interacting with Facebook engineers on a

5   number of occasions to investigate specific issues as well

6   as to discuss the app review process for Facebook.

7   Q.   So Facebook knows that you're using this feature?

8   A.   Yes, they do. Every app developer within Groupon has

9   to register their app on a Facebook developer site. There

10   is a lot of settings and configuration to fill in. You have

11   to get a Facebook app ID and app secret generated that are

12   needed when the API calls to Facebook so the API calls know

13   which app is contacting them. And there is also settings in

14   there that are specific to the mobile apps and to the

15   website so that the Facebook app is -- works correctly with

16   the mobile apps and the website.

17   Q.   Let's move on.

18   So we're back here at the slide with all the

19   different options here. Now I would like to talk about

20   Google a little bit. So how did Groupon know how to

21   implement sign up with Google?

22   A.   So, like Facebook, Google provides a lot of

23   documentation and instructions as well as software about how

24   to integrate websites and mobile apps with Google login.

25   And Groupon has followed those instructions and used the

1   software.

2   Q.   And I believe you have in your binder in exhibit

3   DX-209. Can you turn to that.

4   A.   DX-209?

5   Q.   That's right.

6   A.   Yes.

7   Q.   Do you recognize this document?

8   A.   I do.

9   Q.   What is it?

10   A.   This is a page from the Google developer website.

11   It's documentation about how to implement Google sign in for

12   Android devices that are connected with backend servers.

13   Q.   And is this documentation that Groupon engineers

14   would use to implement Google signup?

15   A.   Yes, we do.

16   Q.   And I would like to turn your attention to the back

17   page. I'll put it up here on the Elmo. You see the section

18   right here, Mr. Breen, create an account or session section?

19   A.   Yes.

20   Q.   What's that section saying?

21   A.   That section is saying that with the access token

22   that the user is -- with the access token for the user, that

23   the third party, Groupon in this case can check if the user

24   is already in their database and if so log them in, or if

25   the account does not exist at the database, that an account

1   record can be created for that user. So it's saying to

2   create a new account.

3   Q.   Let's go back. So how does signup with Facebook work

4   with Groupon?

5   A.   Signup with Facebook.

6   Q.   I'm sorry, signup with Google?

7   A.   So signup with Google works very similarly to the way

8   Facebook works. Although there is two different flows that

9   Google supports. They support the one time code flow and

10   the ID token flow.

11   Q.   Why don't we start with the one time code flow. Can

12   you tell us a little bit about how that works?

13   A.   Sure. Like with Facebook, the user clicks on the

14   signup with Google button and a request is sent from the

15   user's browser to Google's servers and Google responds. And

16   the response results in the browser displaying a popup

17   dialogue page where the user, and that dial up page is a

18   page from Google's website, and the Google page is asking

19   the user to enter their email address for their account. So

20   they can do that and click next, and the question goes to

21   Google servers and the response comes back and they have it

22   displace another pop up pages from Google's website asking

23   the user to enter their Google password.

24   The user can enter their user password and click

25   next and the request goes off to Google servers again, and

1   another response comes back from Google service to the

2   browser. And the next page also from Google's website

3   prompts the user to confirm which account they want to allow

4   to be connected to Groupon's app. And when that is

5   submitted, another request goes back to Google. Now Google

6   generates a one time authentication code that is sent back

7   from Google servers to the user's browser.

8   Q.   What happens after that?

9   A.   The browser sends the one-time authentication code to

10 Groupon's servers, and Groupon's servers again, the user

11 service program running on the Groupon servers will take

12 that auth code and make an API call to the Google API which

13 just like Facebook, which is a program running on Google's

14 servers.

15 Q.   And does that authentication code that we're seeing

16 here that Groupon got from Google via the user's browser,

17 does that have any data about a user like an email address

18 or a name or anything that Groupon can make an account with?

19 A.   No, it does not.

20 Q.   What does it have?

21 A.   It has nothing, it's just, it's -- from Groupon's

22 perspective, it's just a random code in a string of texts.

23 It's just something that we were able to pass to Google.

24 There is nothing that Groupon can interpret from it.

25 Q.   In that sense is it like the Facebook token we talked

 1   about before?

 2   A.   Yeah, similar to the Facebook access token, it does

 3   not have anything that Groupon can read out of it. Both,

 4   both tokens, they're only meaningfully to the system that

 5   generates them.

 6   Q.   And what does Groupon do with the authentication

 7   code?

 8   A.   Groupon passes it in an API call to the Google

 9   servers. And the Google API passes back an access token.

10   That access token is also opaque to Groupon, there is no

11   information associated with it that Groupon can do anything

12   with. It's just a piece of data that came back from Google

13   and is only meaningfully to Google.

14   Q.   And does Groupon do anything with the access token?

15   A.   Groupon will make another API call to Google with

16   that access token. And the response comes back from Google

17   containing data from the user's Google account that the user

18   is granted permission to share with Groupon.

19   Q.   And now, you used a handful of technical terms there

20   and I just kind of want to go over them in case the jury

21   isn't super familiar with them. You mentioned SDK a few

22   times. What is SDK.

23   A.   SDK stands for software development kit. It's

24   software written by a company, in this case, Google, and

25   previously Facebook that will allow the -- they write this

1   software for other companies or sites to use.

2   Q.   And you also mentioned an API. What is an API?

3   A.   An API is an Application Programming Interface. And

4   it is a piece of software program that runs on Google's

5   servers or on Facebook's servers that lets other systems

6   interact with those servers and access data.

7   Q.   So the SDK runs on someone else's servers than the

8   person who wrote them and the API runs on the server of the

9   person who wrote it?

10   A.   That's correct.

11   THE COURT: Mr. Haack, I think that is probably

12   a good point to stop.

13   MR. HAACK: Yes, that sounds good, Your Honor.

14   THE COURT: Ladies and gentlemen of the jury,

15   that concludes our time together this week.

16   On Monday, we expect to have a full day, 9:00 to

17   4:30. While you're away from us, no talking about the case,

18   no research or reading anything related to the case. Please

19   enjoy your weekend, and we'll look for you Monday morning.

20   (Jury left courtroom.)

21   THE COURT: Mr. Breen, you may step down.

22   And I think it's a good time to argue your

23   motions if you want to do that. Anybody that wants to stay

24   can stay.

25   MS. SHAMILOV: Your Honor, I just need a couple

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 1    minutes.

 2                 THE COURT:  A couple minutes?  That's fine.

 3    We'll come back in a couple minutes.

 4                 MS. SHAMILOV:  Thank you.

 5                 (Brief recess taken.)

 6                 *     *     *

 7                 (Proceedings reconvened after recess.)

 8                 THE COURT:  Do you want to argue your motion?

 9    You may do so.

10                 MS. SHAMILOV:  Actually, we have a new proposal.

11    I think it's a joint proposal.

12                 THE COURT:  Okay.

13                 MS. SHAMILOV:  Because of the sheer volume of

14    pages that we would be reading into the record and it will

15    take time, the parties discussed and thought that the best

16    thing would be is to just say nothing is a waiver, we

17    preserve all our motions, and we'll just file everything

18    written in our final JMOLs, and to the extent there are

19    issues that would impact final jury instructions, for

20    example, if there is a particular Rule 50 motion on an issue

21    no evidence was put upon, we can resolve those as part of

22    the final jury instructions.

23                 THE COURT:  And you would not file anything in

24    writing during the trial?

25                 MS. SHAMILOV:  Yes.  I think that is our
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 1   proposal.

 2   THE COURT: Is that a joint proposal?

 3   MR. DESMARAIS: It's agreeable. Yes, Your

 4   Honor.

 5   THE COURT: Okay. If that is agreeable to you,

 6   all, that's fine.

 7   MS. SHAMILOV: Okay.

 8   THE COURT: So we won't put any more time into

 9   motions.

10   MS. SHAMILOV: Yes.

11   THE COURT: Certainly, at an appropriate time,

12   if you have another motion, or if you have a motion on IBM's

13   side, you will at least have to note that.

14   MS. SHAMILOV: Yes, but neither party is waiving

15   anything.

16   THE COURT: As far as I'm concerned, I

17   understand you are not waiving anything. And if you are

18   comfortable with that, that's fine by me.

19   MR. DESMARAIS: Yes, Your Honor. With the one

20   exception that to the extent, as she said, somethings need

21   to be resolved before it goes to the jury, we would bring up

22   the motion in that particular instance but otherwise we'll

23   just make the JMOLs in the filing post-trial.

24   THE COURT: You each have the right to depart

25   from this general agreement and ask me for a ruling on

1   something and argue it at that time, if you wish to.   That's

2   fine.

3   MR. DESMARAIS: Perfect.

4   MS. SHAMILOV: That works.

5   THE COURT: All right.

6   MS. SHAMILOV: Thank you, Your Honor.

7   THE COURT: Is there anything else before we

8   break?

9   MS. SHAMILOV: No.

10   THE COURT: Okay.   I hope you get to notice it

11   is the weekend a little bit.   I'll see you Monday morning.

12   We will be in recess.

13   (Proceedings adjourned at 1:14 p.m.)

14

15   I hereby certify the foregoing is a true and accurate
    transcript from my stenographic notes in the proceeding.
16

17   /s/ Brian P. Gaffigan
                              Official Court Reporter
18   U.S. District Court

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